

HITACHI

PA**No. 0141****32GX01B 32UX01S
36GX01B 36UX01S****NTSC****M10LXU Chassis****R/C: CLU-381UG
R/C: CLU-341UG**


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TO GO TO A CHAPTER, CLICK ON ITS HEADING ABOVE.

CAUTION: Before servicing this chassis, it is important that the service technician read the “Product Safety Notices” in this service manual.

SAFETY NOTICE

USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a  on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the “Safety Precautions” and “Product Safety Notices” in this Service Manual.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

MAY 2000

HHEA-MANUFACTURING DIVISION

SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety-related notes located on or inside the cabinet and on the chassis or picture tube.

WARNING: Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:

1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away from the picture tube while handling.
2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.
3. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment cover-shields, isolation resistors, capacitors, etc.
4. When service is required, observe the original lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer's. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

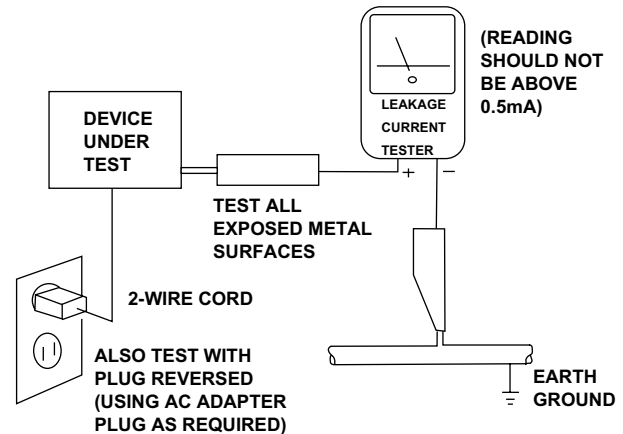
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Using an insulation tester (DC500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of $0.24M\Omega$ and a maximum resistor reading of $12M\Omega$. Any resistance value below or above this range indicates an abnormality which requires corrective action. An exposed metal part having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolated transformer for this check). Turn the AC power ON. Using a Leakage Current Tester (Simpson's Model 229 or equivalent), measure for current from all exposed metal parts of the cabinet (antennas, screwheads, overlays, control shafts, etc.) particularly any exposed metal part having a return path to the chassis or to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5 milliamps.



AC LEAKAGE TEST

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

High Voltage

This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this service manual regarding this hold down circuit when servicing, so that this hold down circuit is operated correctly.


Serviceman Warning

With minimum BRIGHTNESS and CONTRAST, the operating high voltage in this receiver is lower than $30.0\pm 1kv(36V)$, $29.0\pm 1kv(32V)$. In case any component having influence on the high voltage is replaced, confirm that high voltage with minimum BRIGHTNESS and CONTRAST is lower than $30.0\pm 1kv(36V)$, $29.0\pm 1kv(32V)$. To measure high voltage use a High Impedance High Voltage meter. Connect (-) to chassis earth and (+) to the CRT Anode button. (See the following connection diagram.)

Note: Turn power switch OFF without fail before the connection to the Anode button is made.

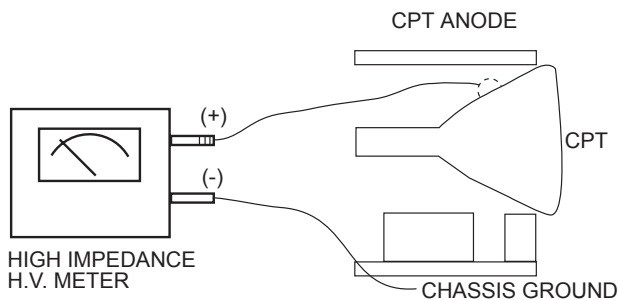
PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety-related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified with an  mark in the schematics and parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI-recommended replacement component, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.

Production safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manuals may be obtained at a nominal charge from HITACHI Sales Corporation.



X-Radiation

TUBE: The primary source of X-Radiation in this receiver is the picture tube. The tube utilized in this chassis is specially constructed to limit X-Radiation emissions. For continued X-Radiation protection, the replacement tube must be the same type as the original HITACHI-approved type.

When troubleshooting and making test measurements in a receiver with an excessive high voltage problem, avoid being unnecessarily close to the picture tube and the high voltage component.

Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.

This Service Manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of


the product and may void warranty. Consumers should not risk trying to do the necessary repairs and should refer to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with solder. Also, when soldering do not inhale any smoke or fumes produced.

SAFETY NOTICE USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics identified by ! on the parts list in this service manual and its supplements and  bulletins. Before servicing this product, it is important that the service technician read and follow the "Safety Precautions" and the "Product Safety Notices" in this Service Manual.

For continued X-Radiation protection, replace picture tube with original type or HITACHI equivalent type.

POWER SOURCE

This television receiver is designed to operate on 120 Volts/60Hz, AC house current. Insert the power cord into a 120 Volts/60Hz outlet.

NEVER CONNECT THE TV TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
 - a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.
 - b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.
 - c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.

CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
 - d. Discharging the picture tube anode.
2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc."
3. Discharge the picture tube's anode by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube high voltage output, using an insulated handle to avoid personal contact with high voltage.
4. Do not spray chemicals on or near this instrument or any of its assemblies.
5. Unless specified otherwise in these service data, clean electrical contacts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).

CAUTION: This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.
6. Do not defeat any plug/socket B+ voltage interlocks which instruments covered by this service data might be equipped.
7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat-sinks are correctly installed.

8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.
9. Use with this instrument only the test fixtures specified in this service data.

CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

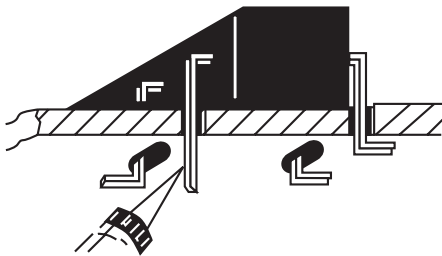
Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge build-up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or desolder ES devices.
4. Use only an anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES device.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.
2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.
3. Keep the soldering iron tip clean and well-tinned.
4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.
5. Use the following desoldering technique.
 - a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
 - b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.**CAUTION:** Work quickly to avoid overheating the circuit board printed foil.
6. Use the following soldering technique.
 - a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).
 - b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.
 - c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.**CAUTION:** Work quickly to avoid overheating the circuit board printed foil or components.
- d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Soldering Iron to Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.
2. Carefully bend each IC lead against the circuit foil pad and solder it.
3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to areas.)

“Small-signal” Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.
2. Bend into a “U” shape the end of each of three leads remaining on the circuit board.
3. Bend into a “U” shape the replacement transistor leads.
4. Connect to replacement transistor leads to the corresponding leads extending from the circuit board and crimp the “U” with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacement

1. Heat and remove all solder from around the transistor leads.
2. Remove the heatsink mounting screw (if so equipped).
3. Carefully remove the transistor from the circuit board.
4. Insert new transistor in circuit board.
5. Solder each transistor lead, and clip off excess lead.
6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.
2. Bend the two remaining leads perpendicularly to the circuit board.
3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.
4. Securely crimp each connection and solder it.
5. Inspect (on the circuit board copper side) the solder joints of the two “original leads”. If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuses and conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.
2. Securely crimp leads of replacement component around stake 1/8 inch from top.
3. Solder the connections.

CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off" the board. The following guidelines and procedures should be followed whenever this condition is encountered.

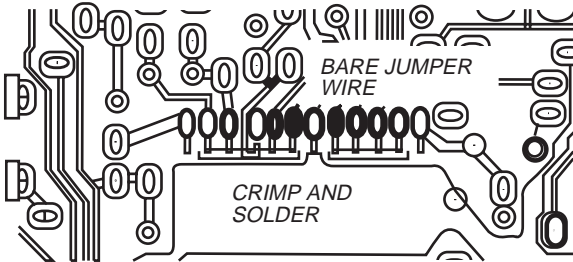
In Critical Copper Pattern Areas

High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these area is designated as Critical Copper Pattern. Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.

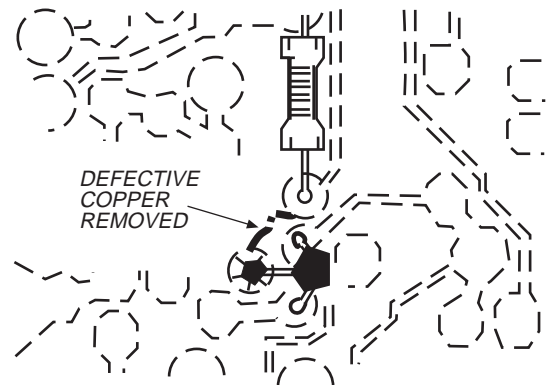


Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both wire sides of the pattern break and locate the nearest component directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.

CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

Frequency Synthesis (FS) Tuning Systems

1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or inserting FS tuning system modules.
2. The FS tuner must never be disconnected from the FS tuning control module while the power is applied to the instrument.
3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

NOTE: These components are affixed with glue. Be careful not to break or damage any foil under the component or at the pins of the ICs when removing. Usually applying heat to the component for a short time while twisting with tweezers will break the component loose.

Leadless Chip Components (surface mount)

Chip components must be replaced with identical chips due to critical foil track spacing. There are no holes in the board to mount standard transistors or diodes. Some chip capacitor or resistor board solder pads may have holes through the board, however the hole diameter limits standard resistor replacement to 1/8 watt. Standard capacitors may also be limited for the same reason. It is recommended that identical chip components be used.

Chip resistors have a three digit numerical resistance code -1st and 2nd significant digits and a multiplier. Example: 162 = 1600 or 1.6K Ω resistor, 0 = 0 Ω (jumper).

Chip capacitors generally do not have the value indicated on the capacitor. The color of the component indicates the general range of the capacitance.

Chip transistors are identified by a two letter code. The first letter indicates the type and the second letter, the grade of transistor.

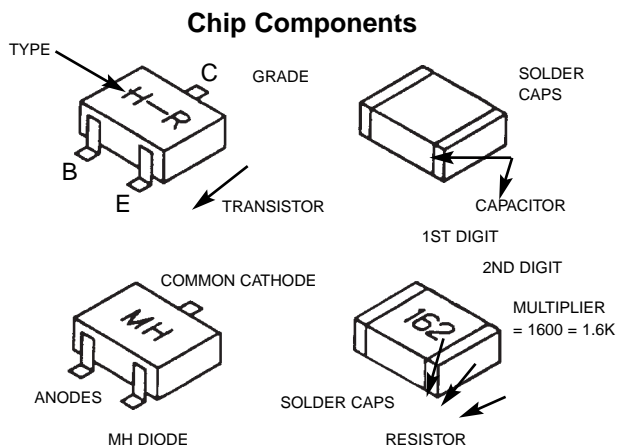
Chip diodes have a two letter identification code as per the code chart and are a dual diode pack with either common anode or common cathode. Check the parts list for correct diode number.

Component Removal

1. Use solder wick to remove solder from component end caps or terminals.
2. Without pulling up, carefully twist the component with tweezers to break the adhesive.
3. Do not reuse removed leadless or chip components since they are subject to stress fracture during removal.

Chip Component Installation

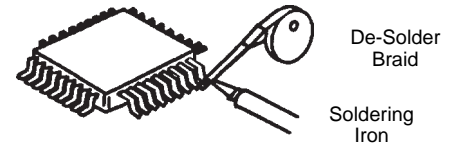
1. Put a small amount of solder on the board soldering pads.
2. Hold the chip component against the soldering pads with tweezers or with a miniature alligator clip and apply heat to the pad area with a 30 watt iron until solder flows. Do not apply heat for more than 3 seconds.



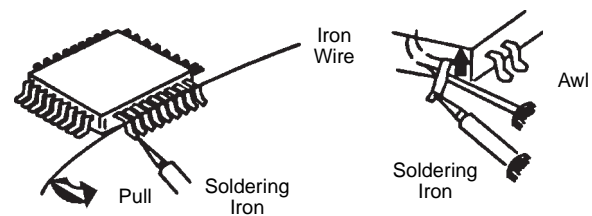
How to Replace Flat-IC —Required Tools—

- Soldering iron
- iron wire or small awl
- De-solder braids
- Magnifier

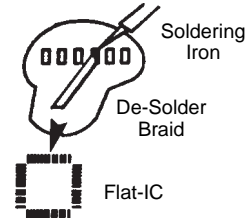
1. Remove the solder from all of the pins of a Flat-IC by using a de-solder braid.



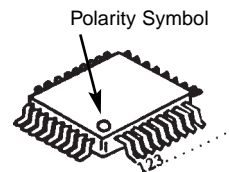
2. Put the iron wire under the pins of the Flat-IC and pull it in the direction indicated while heating the pins using a soldering iron. A small awl can be used instead of the iron wire.



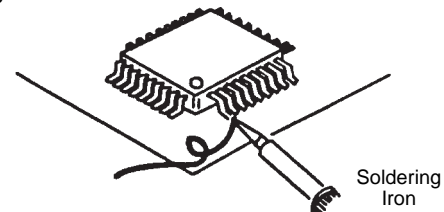
3. Remove the solder from all of the pads of the Flat-IC by using a de-solder braid.



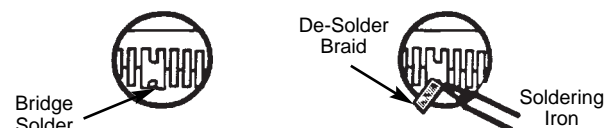
4. Position the new Flat-IC in place (apply the pins of the Flat-IC to the soldering pads where the pins need to be soldered). Properly determine the positions of the soldering pads and pins by correctly aligning the polarity symbol.



5. Solder all pins to the soldering pads using a fine tipped soldering iron.



6. Check with a magnifier for solder bridge between the pins or for dry joint between pins and soldering pads. To remove a solder bridge, use a de-solder braid as shown in the figure below.



TECHNICAL SPECIFICATIONS

POWER RATINGS

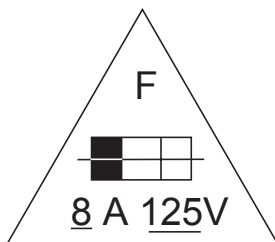
36UX01S/CZOU168 Max. Watts
32UX01S/CYOU168 Max. Watts
36GX01B/CZOG150 Max. Watts
32GX01B/CYOG150 Max. Watts

COLOR PICTURE TUBE

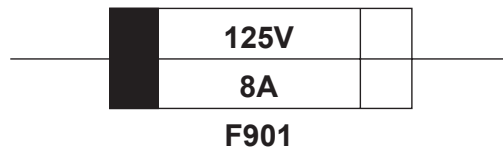
36UX01S/CZOUA90AHH50X01
32UX59B/CYOUA80LJF30X(W)
36GX01B/CZOGA90LPY30X01
32GX01B/CYOGA80LJF30X(W)

CAUTION: Below is an EXAMPLE only. See Replacement Parts List for details. The following symbol near the fuse indicates fast operating fuse (to be replaced). Fuse ratings appear within the symbol.

Example:



“RISK OF FIRE - REPLACE FUSE AS MARKED”



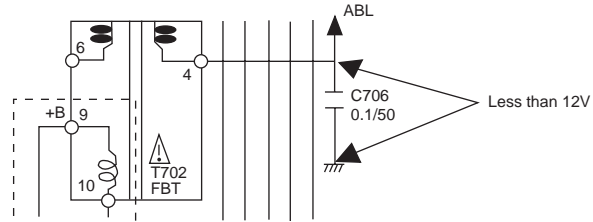
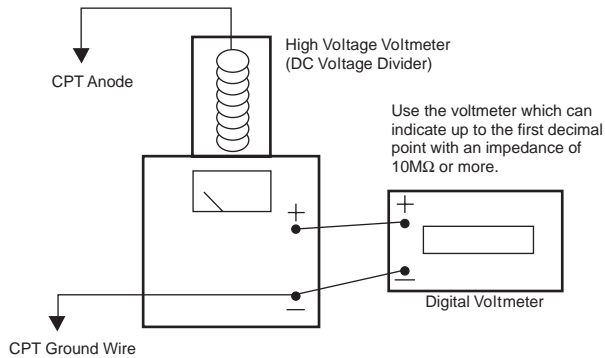
The rating of fuse F901 is 8.0A-125V.
Replace with the same type fuse for continued protection against fire.

TECHNICAL CAUTIONS

High Voltage Limiter Circuit Operation Check and Overvoltage Protection Circuit Operation Check

Adjustment Preparation

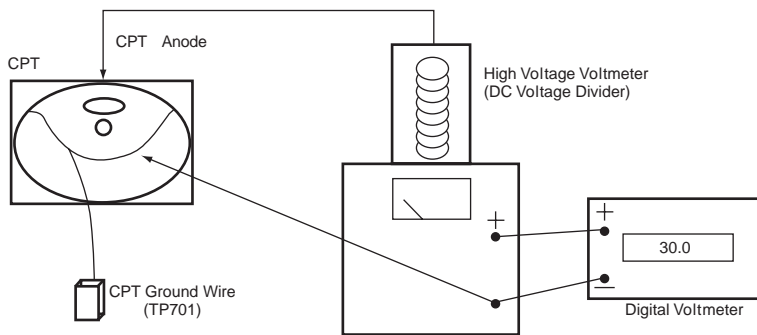
1. Connect a High Voltage Voltmeter between CPT Anode terminal (Anode capsid) and Ground.
2. Set the AC input voltage to $120 \pm 3V$.
3. Receive Circle Pattern or Broadcast Signal and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust the SCREEN VR so that Beam Current is $I_B \pm 0.1mA$. (The voltage at ABL terminal (C706) should be 12V or less.)



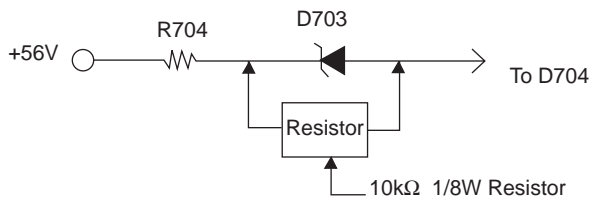
Adjustment Procedure

1. Check that the normal High Voltage and +B Voltage as below.

CHASSIS	EHT $\pm 1kV$	$I_B \pm 0.1mA$	+B
CZOU, CZOG	$30.0 \pm 1kV$	$1.7 \pm 0.1mA$	$140 \pm 0.3V$
CYOU, CYOG	$29.0 \pm 1kV$	$1.5 \pm 0.1mA$	$140 \pm 0.3V$



2. Connect a $10K\Omega$ $1/8W$ resistor to both ends of D703 and check that power is turned off.



3. Disconnect the AC plug and remove the $10k\Omega$ resistor.

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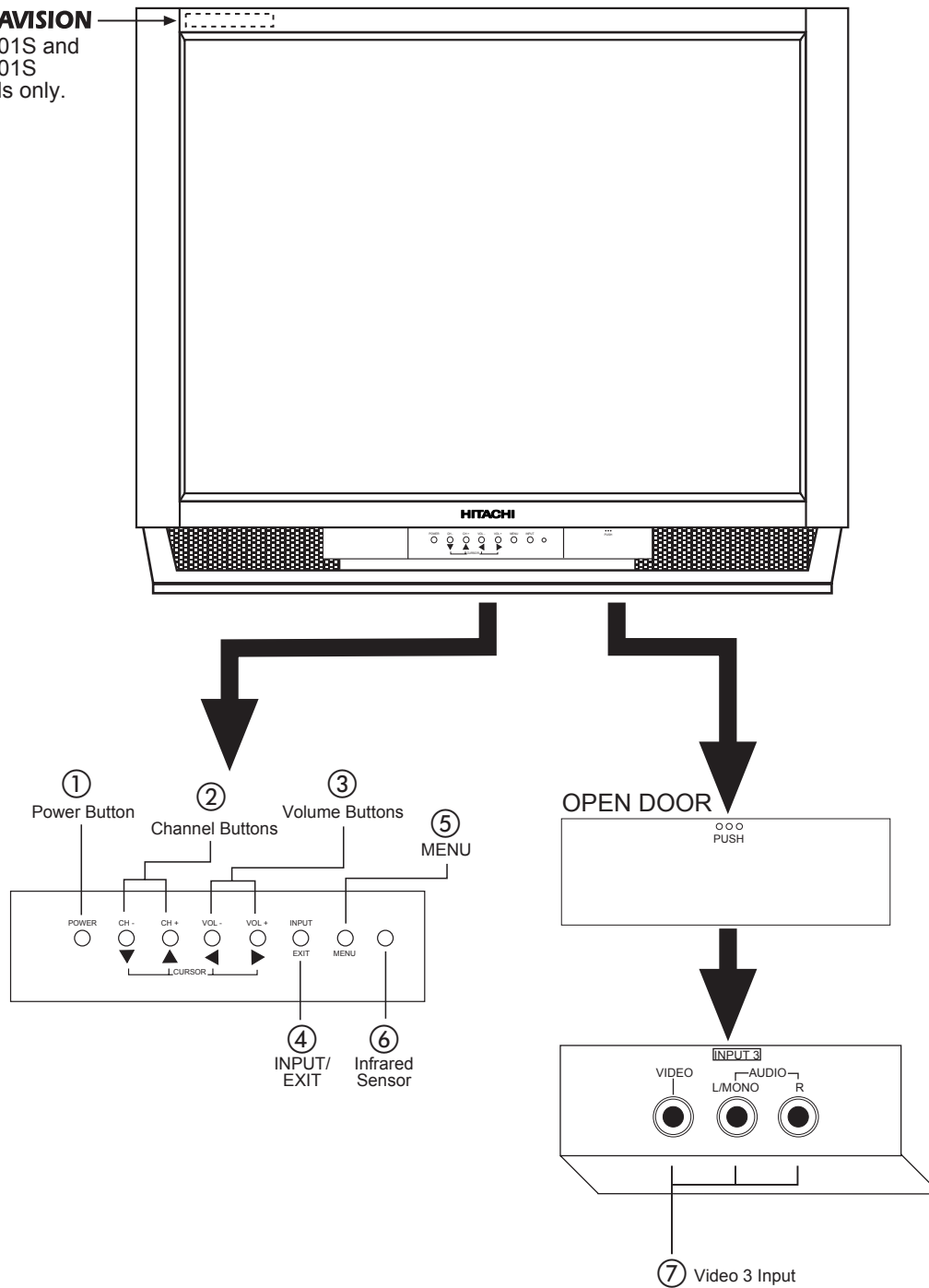
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FRONT PANEL CONTROLS

ULTRAVISION
32UX01S and
36UX01S
models only.



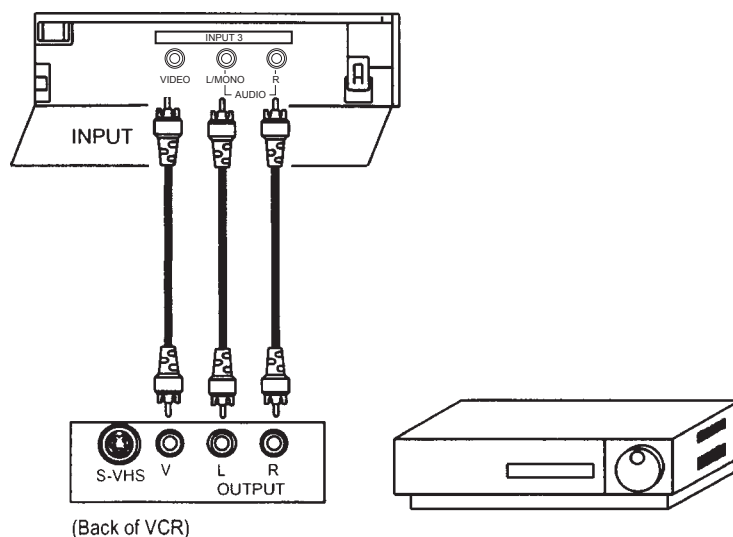
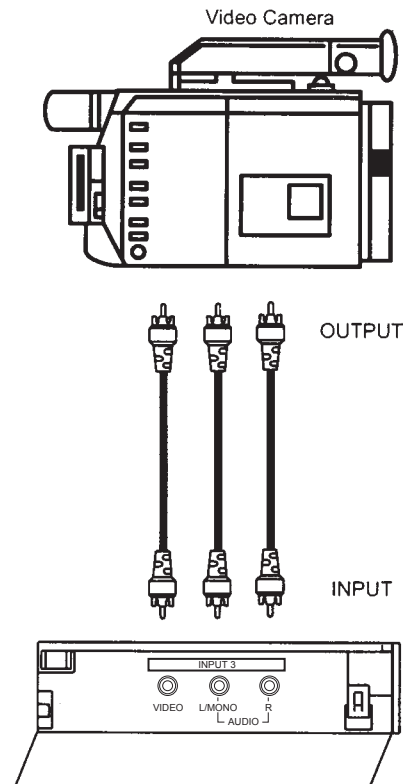
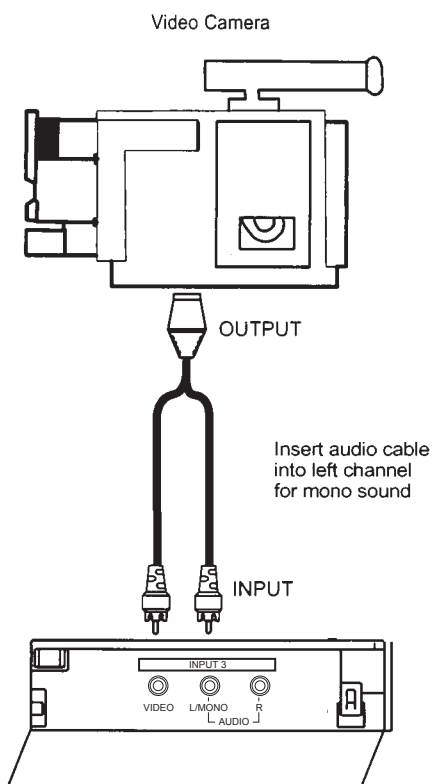
A detailed explanation of the circled numbers is on page 14.

FRONT PANEL CONTROLS

- ① **POWER Button**
Press this button to turn the TV on or off.
 - ② **CHANNEL Selector**
Press these buttons until the desired channel appears in the top right corner of the TV screen.
 - ③ **VOLUME Level**
Press these buttons for your desired sound level. The volume level will be displayed on the TV screen.
 - ④ **INPUT/EXIT Button**
Press this button to select the current antenna or VIDEO source. Your selection is shown in the top right corner of the screen. This button also serves as the EXIT button when in MENU mode.
- NOTE:** Your HITACHI TV will appear to be turned OFF if there is no video input when VIDEO Source is selected. Press the INPUT button until the normal broadcast picture appears. If the picture does not appear, the power is OFF.
- ⑤ **MENU Button**
This button allows you to enter the MENU, making it possible to set TV features to your preference with out using the remote.
 - ⑥ **REMOTE CONTROL INFRARED Sensor**
Point your remote control at this area when selecting channels, adjusting volume, etc.
 - ⑦ **FRONT INPUT JACKS**
Use these audio/video jacks for a quick hook-up to a comcorder or VCR to instantly view your favorite show or new recording. Press the INPUT button until VIDEO:3 appears in the top right corner of the TV screen. If you have mono sound, insert the audio cable into the left channel jack.

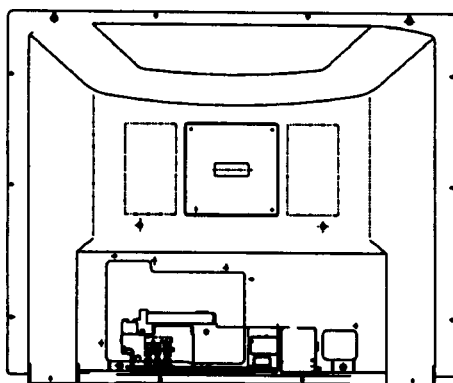
FRONT PANEL JACKS AND CONNECTIONS

The front panel jacks are provided as a convenience to allow you to easily connect a camcorder or VCR as shown in the following examples:

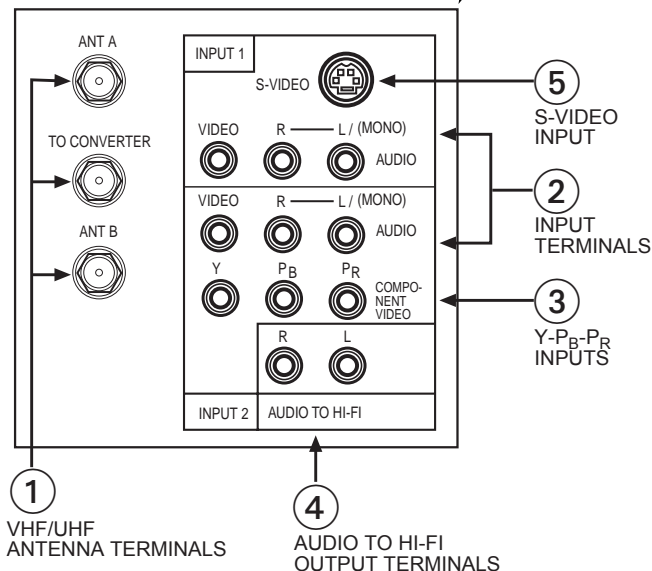


NOTE: Completely insert connection cord plugs when connecting to front panel jacks. If you do not, the picture that is played back may be abnormal.

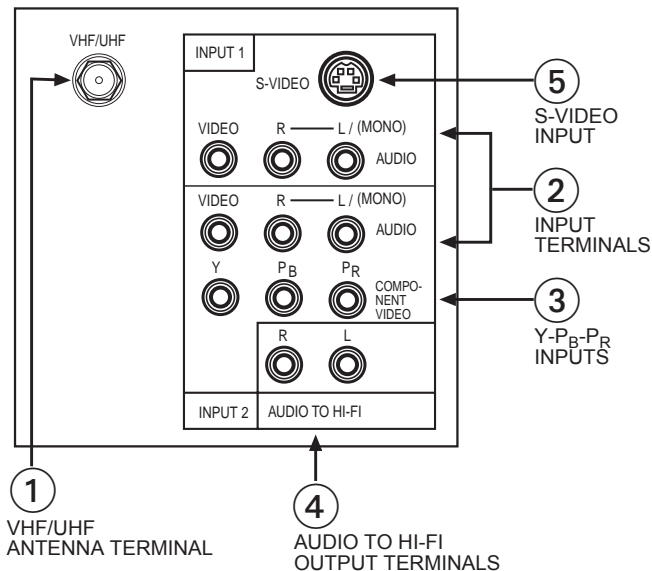
REAR PANEL OF TELEVISION



32/36UX01S



32/36GX01B



① Antenna Inputs

32GX01B and 36GX01B models

The VHF/UHF terminal can be used for Normal TV, Cable TV (CATV), video games, etc.

32UX01S and 36UX01S models

The remote control allows you to switch between two separate 75-Ohm RF antenna inputs, ANT A and ANT B. ANT A input can be displayed as a main picture or sub-picture. ANT B can only be displayed as a sub picture. (ANT B cannot be displayed as a main picture.) The antenna output labeled "TO CONVERTER" allows the ANT A connection to pass directly to a different source such as a cable box.

② Audio/Video Inputs 1, 2

The INPUT button will step through each video source and antenna source input each time it is pressed. Use the audio and video inputs to connect external devices, such as VCRs, camcorders, laserdisc players, etc. (If you have mono sound, insert the audio cable into the left channel jack.)

③ Y-P_B-P_R Input

This input provides Y-P_B-P_R jacks for connecting equipment with this capability, such as a DVD Player. This input can receive 480i signal only.

④ Audio to HI-FI

These jacks provide variable audio output to a separate stereo amplifier. With this connection, the audio to the stereo can be controlled by the television's main volume. Use these jacks for the SURROUND Left and Right channels.

⑤ S-Video

Inputs 1 provide S-Video (Super Video) jacks for connecting equipment with S-Video output capability.

TIPS ON REAR PANEL CONNECTIONS

The S-Video connections are provided for high performance laserdisc players, VCRs etc. that have this feature. Use these connections in place of the standard video connection if your device has this feature.

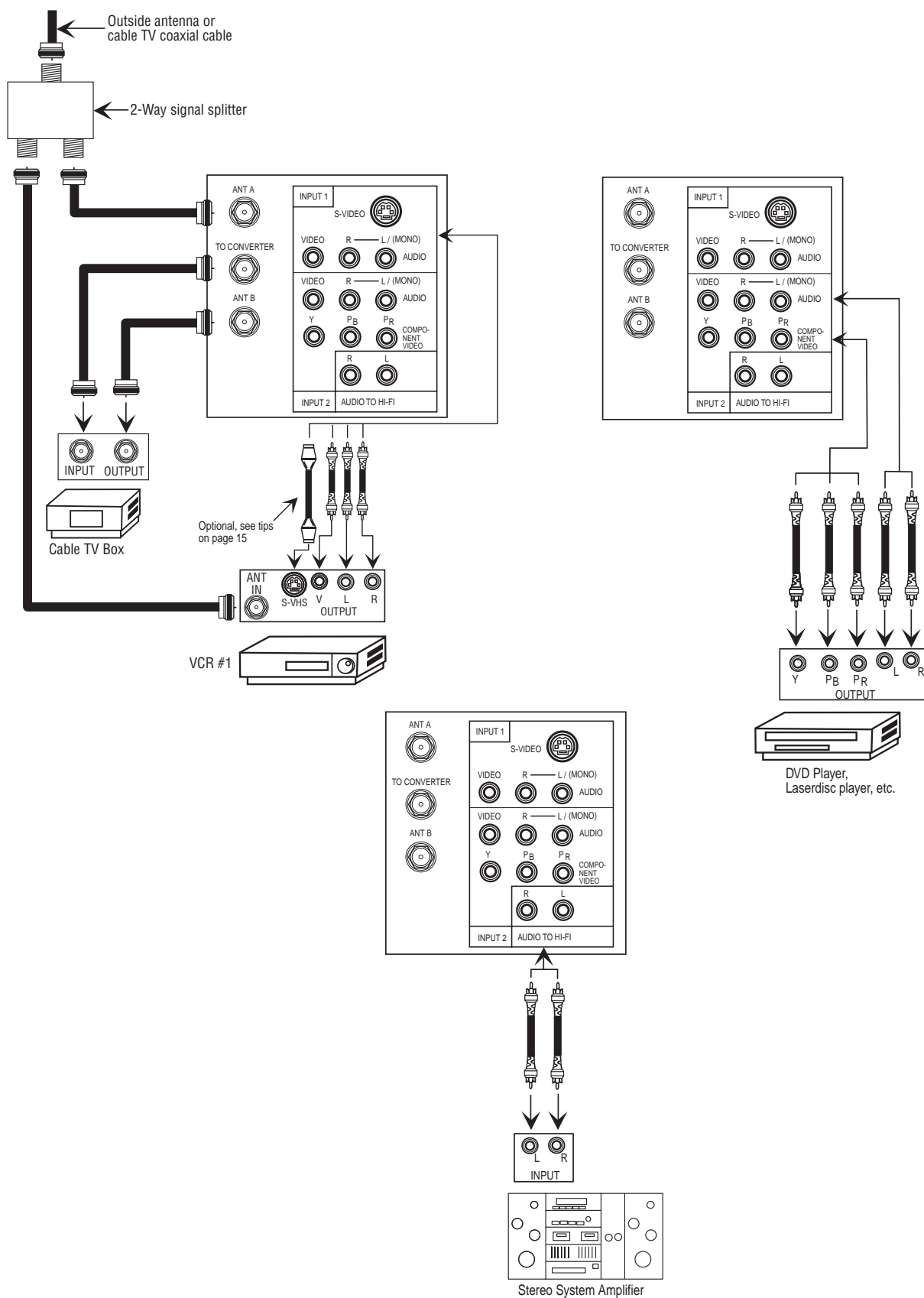
COMPONENT: Y-P_BP_R connections are provided for high performance components, such as DVD players. Use these connections in place of the standard video connection if your device has this feature.

When using the Y-P_BP_R input jacks, connect your components audio output to the TV's Input 2 Left and Right Audio inputs jack.

If your device has only one audio output (mono sound), connect it to the left audio jack on the television.

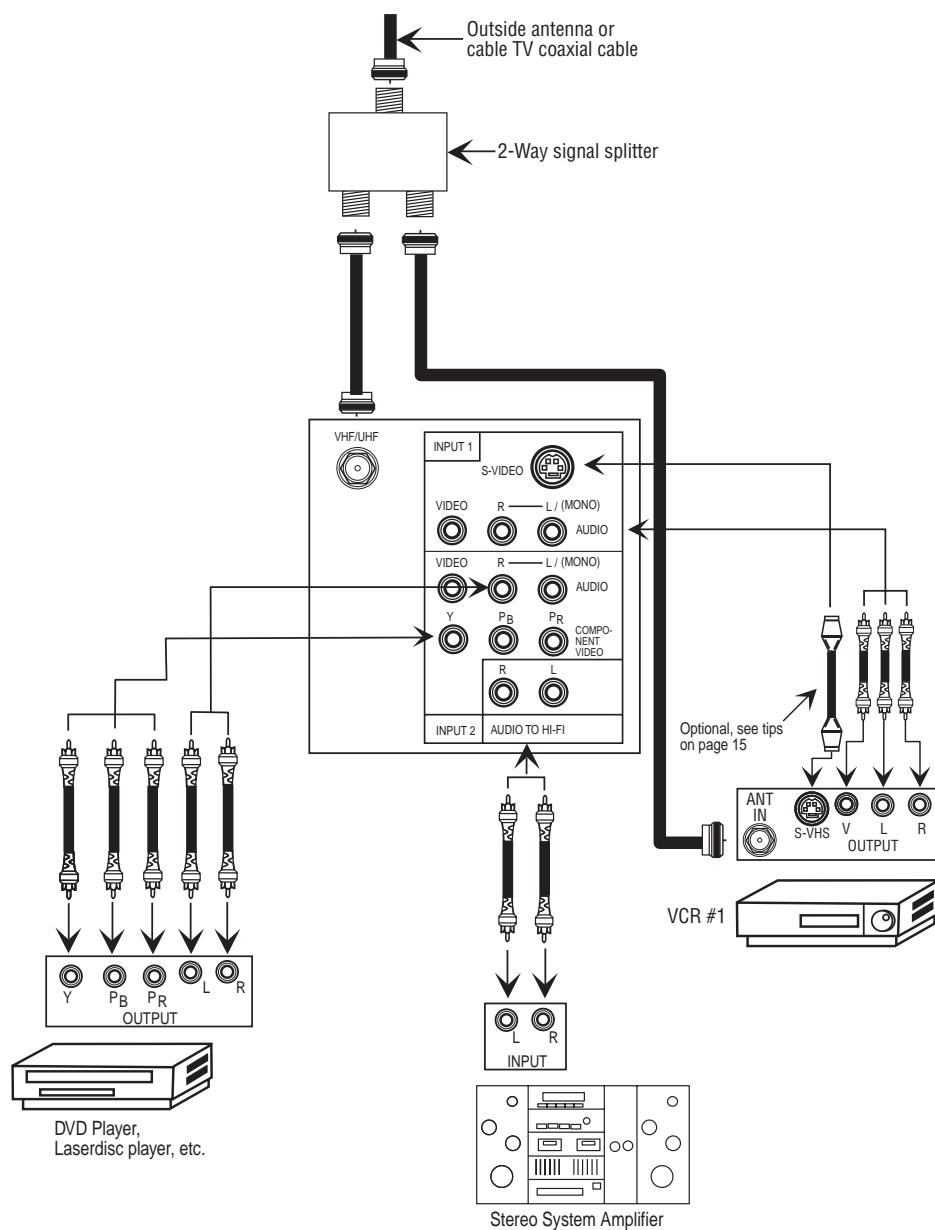
Refer to the operating guide of your other electronic equipment for additional information on connecting your hook-up cables.

REAR PANEL CONNECTIONS (32UX01S and 36UX01S)



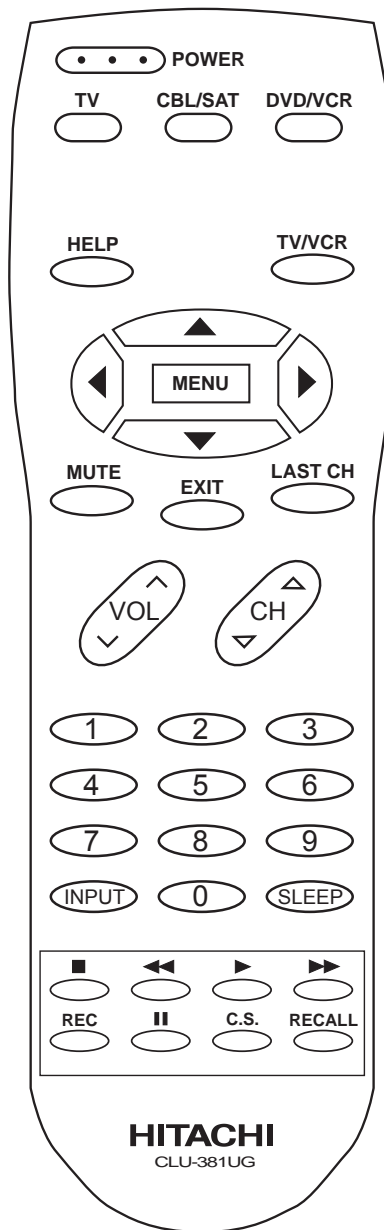
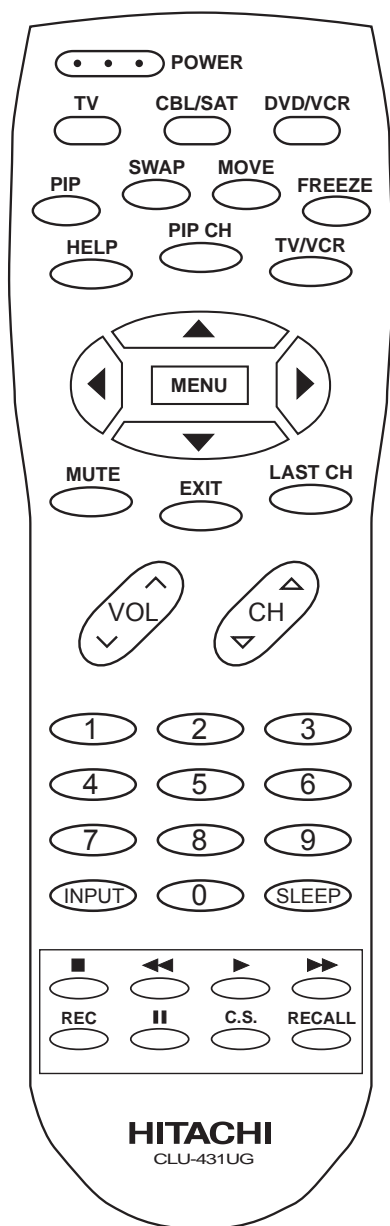
Typical full feature setup. Follow connections that pertain to your personal entertainment system.

REAR PANEL CONNECTIONS (32GX01B AND 36GX01B)



Typical full feature setup. Follow connections that pertain to your personal entertainment system.

USING THE REMOTE TO CONTROL YOUR TV

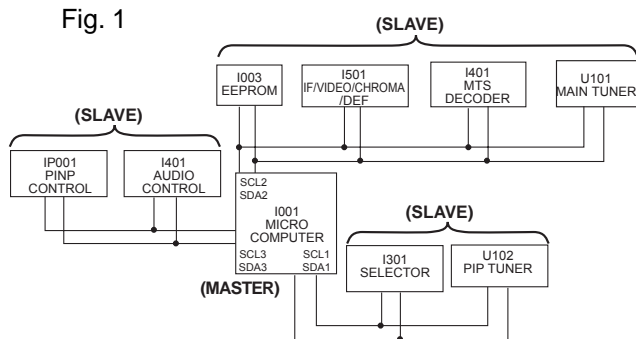


I. MAIN CHASSIS ADJUSTMENT

1. Multi Master I²C Bus System

M10LXU Chassis uses I²C Bus control system.

Fig. 1 shows this control system.

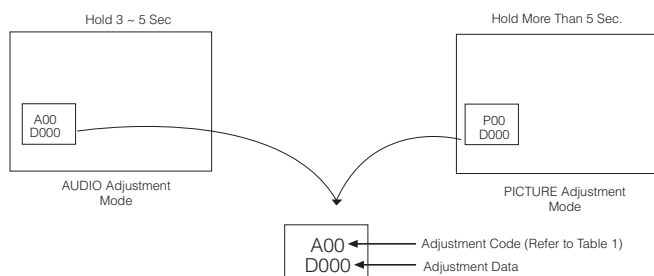


I001 (Master) controls other ICs (Slave). Adjustment data is memorized in I003 (EEPROM). I001 reads this data and controls other ICs (slave). Adjustment items applied in this chassis are shown in Table 1.

2. ADJUSTMENT PROCEDURE-START UP

2-1 How to Get to Adjustment Mode

Chassis adjustment can be done by using the front control panel buttons with CTV set turned off. Press "POWER" and "INPUT" keys at the same time, and hold for more than 3 seconds. The CTV set turns on in adjustment mode with OSD as follows.



"To Escape from Adjustment Mode"

Press "POWER" button of remo-con or front panel once at anytime. Then set returns to normal state.

TABLE 1

Adjustment Code

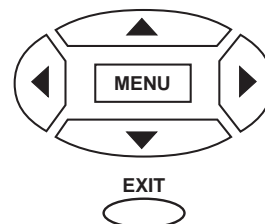
Mode	Function	Adjustment Data	Adjustment Code
MTS	Stereo VCO adjustment	63~0	A01
	SAP VCO adjustment	63~0	A02
	FILTER adjustment	63~0	A03
	Input level adjustment	63~0	A04
	Low pass separation adjustment	63~0	A05
	High pass separation adjustment	63~0	A06
VIDEO	G DRIVE adjustment	127~0	P01
	B DRIVE adjustment	127~0	P02
	R Cut off adjustment	255~0	P03
	G Cut off adjustment	255~0	P04
	B Cut off adjustment	255~0	P05
	SUB Brightness adjustment	31~0	P06
	RGB Brightness adjustment	7~0	P07
	H POSITION adjustment	31~0	P08
	H SIZE adjustment	31~0	P09
	V POSITION adjustment	63~0	P10
	V SIZE adjustment	63~0	P11
	E/W TARABOLA adjustment	63~0	P12
	V-S CORRECTION adjustment	63~0	P13
	V-LIN CORRECTION adjustment	127~0	P14
	E/W TRAPEZOID adjustment	127~0	P15
	EW CORNER adjustment	63~0	P16
	V CENTER adjustment	63~0	P17
	SUB CONTRAST adjustment	127~0	P18
	SUB COLOR adjustment	127~0	P19
	SUB TINT adjustment	3~0	P20
	SUB SHARPNESS adjustment		P21
	W/B G adjustment		P22
	W/B B adjustment		P23
	SERVICE		P24
OSD	OSD H POSITION		M01
	CCD SLICE LEVEL adjustment		M02
	CCD SYNC TIPSLICE LEVEL adj.		M03
	OSD H size adjustment		M04
PIP	R OFFSET adjustment	31~0	S01
	G OFFSET adjustment	63~0	S02
	B OFFSET adjustment	31~0	S03
	PIP SUB COLOR adjustment	31~0	S04
	PIP SUB TINT adjustment	63~0	S05
	PIP CONTRAST adjustment	31~0	S06
	PIP H POSITION	225~0	S07
	PIP BRIGHTNESS adjustment	31~0	S08

* This data is an approximate service code data. Fine adjustment must be done using the specified test procedure and adjustment tools.

2-2 Changing Data and Adjustment Code

When the CTV set is in adjustment mode, the cursor ▲, ▼, ◀, ▶ and MENU keys of the remote control will be the adjustment keys.

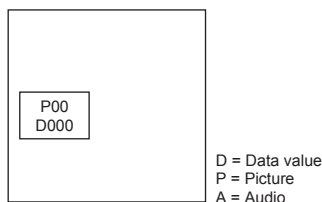
A. Use any Hitachi remote control when making an adjustment.



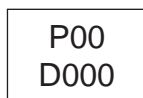
▲, ▼ keys are used for changing adjustment code.
◀, ▶ keys are used for changing data.
MENU key is used for changing "Cut Off Mode"/"Normal mode." (Refer to cut off adjustment)

3. ADJUSTMENT MODE

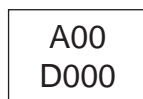
1. Before turning ON the set, press and hold the POWER button and INPUT button of the front panel of TV set for about 3 seconds.
2. After 3 seconds, a small square will appear in the left center of the screen. There are two different displays, depending upon how long the POWER and INPUT buttons are pressed and held. One shows A and D for audio adjustment, and the other shows P and D for the picture adjustment.



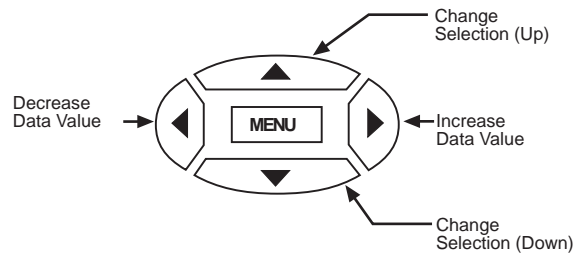
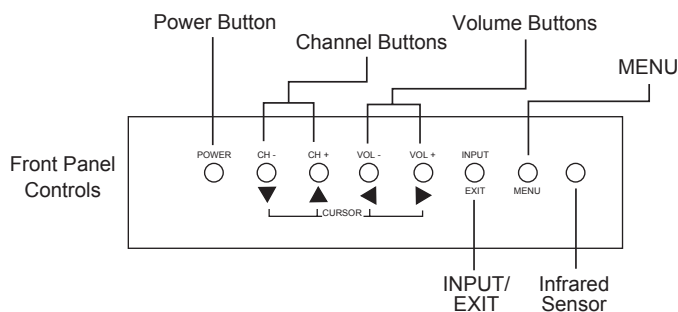
3. To activate the picture adjustment mode, input a data value of 30 (D030), using the front panel or remote control cursor ◀, ▶ before any of the picture adjustments can be adjusted.



The same for the audio adjustment. To activate the adjustment, you need an input data value of 20 before any of the audio adjustments can be adjusted.



4. To make a selection, use the CURSOR keys on front control panel or the Remote Control.



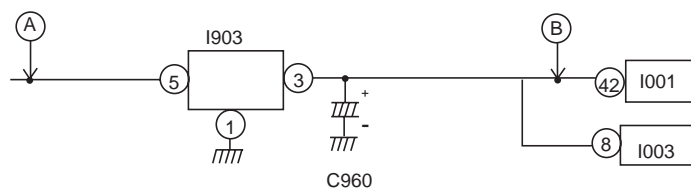
5. After finishing the necessary adjustment press the "POWER" button. Adjustment mode is released and TV set returns to normal condition.

4. ADJUSTMENT PROCEDURE

4-1 Initial setting of EEPROM (I003)

Adjustment Preparation (I²C adjustment only)

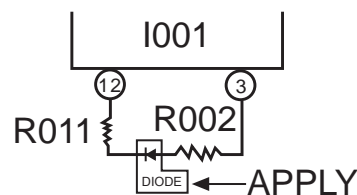
- (1) Apply +12V to (A) point and check (B) point is $5V \pm 0.3V$



- (2) Connect I²C adjustment jig as shown.

Adjustment procedure

- (1) Apply a DIODE as follows.



- (2) Check ⑤ pin of I001 changes L → H → L.
Mi-con outputs "H" from ⑤ pin during E2PROM initial operation. Never unplug before ⑤ pin return to L.
- (3) TV set will tune to Channel 3.
- (4) Remove DIODE.

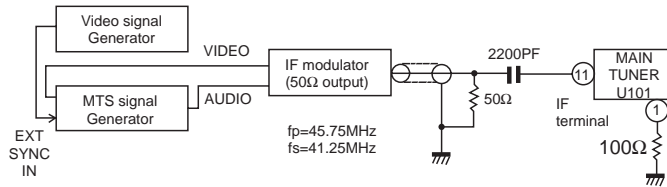
4-3 MTS ADJUSTMENT

4-3-1 Input Level Adjustment

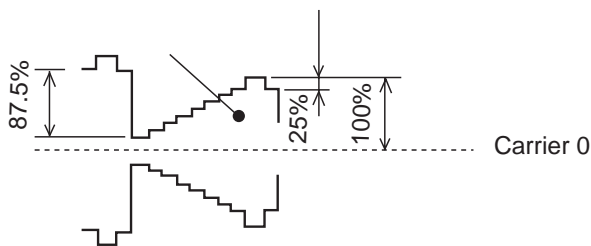
Adjustment Preparation

- (1) Apply a signal to output terminals of the Main Tuner on the Main PWB using the circuit shown below. Connect 100Ω resistor between AGC terminal, Pin ① and GND.

Note : Video signal and Audio Signal should be synchronized.



IF modulator output signal waveform
(Color bar or all white)



IF modulator output level and P/S
P=105dBu (50Ω termination)
S level; -3dB to P level
At this time, S/N ratio of F/E
video output is 45dB or less.

Sound modulation condition:

Noise reduction encoder: ON

Stereo signal;

① R=0 (L only), 300Hz, 30% modulation

② R=0 (L only), 3kHz, 30% modulation

Monaural signal;

③ Monaural, 400Hz, 100% modulation
(PRE-EN Off)

SAP signal;

④ SAP, 300Hz, 30% modulation (see note)

(2) Connect AC voltmeter Vo to I401 pin ④0.

Use the AC voltmeter of Matsushita model
VP-950C or equivalent.

Adjustment Procedure

- (1) Select sound input ③ then adjust the data "A04" to Vo= 500mVrmsw10mVrms at I401 pin ④0 .

4-3-2 Stereo VCO adjustment

Adjustment Preparation

- (1) Same as items 4-3-1(1) and 4-3-1(2).

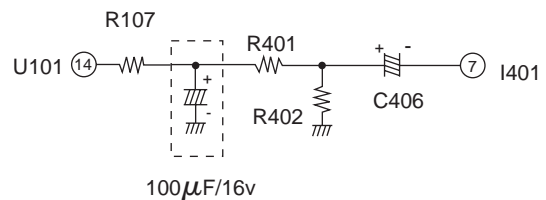
- (2) Connect a frequency counter to I401 pin ④0. Use 1:1 Probe.

(Probe standard Ri≥1MΩ, Ci≤15pF)

- (3) Should be no signal at pin ⑦ (I401).

- (4) Connect capacitor (100μF/16v) as it is shown.

- (5) Select adjustment code "A01."



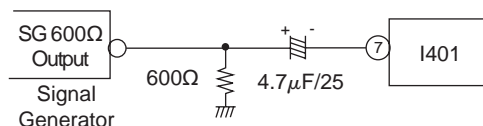
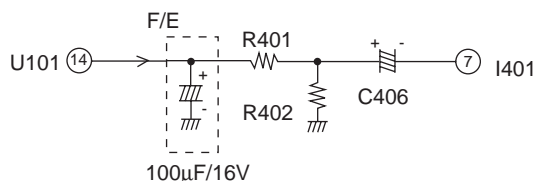
Adjustment Procedure

- (1) Adjust the data "A01" to set 15.73±0.1KHz by ◀, ▶ keys.
- (2) Remove capacitor (100μF/16v)

4-3-3 Filter Adjustment

Adjustment Preparation

- (1) Connect capacitor 100 μ F/16V as it is shown.
- (2) Apply signal to I401 pin ⑦ with the circuit as it is shown.



① SG output signal spec.

① Frequency
f=15.73kHz (Sine wave)

② Signal Level

V=100mVrms

- (3) Connect an AC voltmeter or oscilloscope to I401 pin ④.
- (4) Select adjustment code "A03."

Adjustment Procedure

- (1) Adjust the data "A03" so that the voltage of I401 pin ④ becomes minimum by ◀, ▶ keys.

4-3-4 Separation Adjustment

(The adjustment of items 4-3-1 and 4-3-3 must be completed first)

Adjustment Preparation

- (1) Use the same circuit as input level adjustment 4-3-1(1).
- (2) Connect a frequency counter to I401 pin ④ or connect an oscilloscope.
- (3) Select adjustment code "A05" and set data "D032".

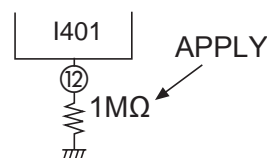
Adjustment Procedure

- (1) Select input signal ① and select adjustment code "A05". Adjust by ◀, ▶ keys so that 300Hz level becomes minimum (L separation adjustment)
- (2) Select input signal ② and select adjustment code "A06". Adjust by ◀, ▶ keys so that 3KHz level becomes minimum (H separation adjustment).
- (3) Repeat (1) and (2). Adjustment precision: within +1dB from minimum point.

4-3-5 SAP VCO Adjustment

Adjustment Preparation

- (1) Connect a frequency counter to I401 pin ④.
- (2) Select adjustment Code "A02".
- (3) Connect same circuit as in item 4-3-2(5).
- (4) Apply 1M Ω resistor to I401 pin ⑫ and GND.



Adjustment Procedure

- (1) Adjust the data "A02" by ◀, ▶ keys so that the frequency is 78.67±0.5KHz.
- (2) Remove 1M Ω resistor.

4-3-6 Check data of MTS demodulating circuit adjustment.

- (1) Unplug set after all items are adjusted.
- (2) Plug in the TV set.
- (3) Check that data are the same as adjusted.

II. FUNCTION SETTING

M10LXU Chassis has the data for setting variety functions in EEPROM (I003).

Microprocessor (I001) set the functions needed for each model according to EEPROM data (memory switch data).

1. HOW TO SET MEMORY SWITCH SETTING MODE

- (1) Repeat section 4-1 (initial setting of EEPROM (I003) on Page 22).
- (2) TV set will automatically send features data to appropriate model.
- (3) Table 1 below shows model name and their features.

TABLE 1 MODEL AND DATA TABLE

	MODEL	NAME
DATA NAME	36UX01S 32UX01S	36GX01B 32GX01B
TU	1	0
V	1	1
50/60	1	1
PIP	1	0

2. EXPLANATION OF MEMORY SWITCH FUNCTIONS

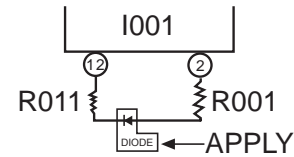
- (1) TU (2 Tuners)
Selects TU for 1 or 2 tuners.
Data "1" - Two tuners.
Data "0" - One tuner.
- (2) (V-CHIP)
Selects (V-CHIP) Function or not.
Data "1" - Apply (V-CHIP) function.
Data "0" - Do not apply (V-CHIP) function.
- (3) 50/60
Apply 50/60 frequency or not.
Data "1" Apply 50/60 frequency.
Data "0" Do not apply 50/60 frequency.
- (4) PIP
Apply PIP function or not.
Data "1" - Apply PIP function.
Data "0" - Do not apply PIP function.

III. MEMORY RE-INITIALIZATION

1. MEMORY INITIALIZE OPERATION CHECK

Adjustment Procedure

- (1) Apply diode as follows.



- (2) Check that the receiving channel goes to CH03.
Unit is set to factory settings.
- (3) Remove diode.

IV. OPERATION CHECK

1. AFC OPERATION CHECK

Adjustment Preparation

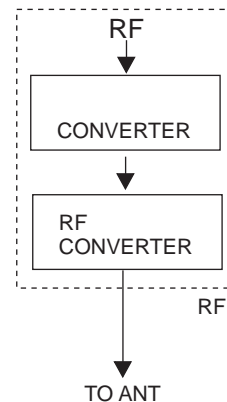
- (1) Connect the circuit as shown below to the ANT terminal.

Adjustment Procedure

- (1) Receive a standard carrier (not offset) with the channel up/down or direct selection buttons.
- (2) Receive an offset signal of +1.5MHZ. Check that it is pulled into the standard tuning point. (Perform the channel selection operation.)
- (3) Receive an offset signal of -1.5MHZ. Check that it is pulled into the standard tuning point. (Perform the channel selection operation again.)

Note: Modulation signal should be used at the circle pattern and the color bar signal.

Checking circuit
(All channel converter can be used)



2. CHANNEL SELECTION CIRCUIT OPERATION CHECK

2-1 Channel Up/Down Selection

Adjustment Preparation

- (1) Set the TV set so that VHF (11, 13CH), UHF (14, 46, 63CH) and CATV (A, E, P, WCH) can be received.
- (2) Set Signal Source mode to Antenna on the set up menu. (Press the Menu key, and select Setup, then select Signal Source mode, See next page.)

Adjustment Procedure

- (1) Check that VHF are received correctly by pressing CH Up (▲) or Down (▼) button.

Adjustment Preparation

- (3) Set Signal Source mode to CATV 1.

Adjustment Procedure

- (2) Perform the same operation as in Item (1), and check that VHF and CATV are received correctly.

Adjustment Preparation

- (4) Set Signal Source mode to CATV 2.

Adjustment Procedure

- (3) Perform the same operation as in Item (1), and check that VHF and CATV are received correctly.

Note: This check should be done to both ANT A and B.
(32UX01S and 36UX01S models)

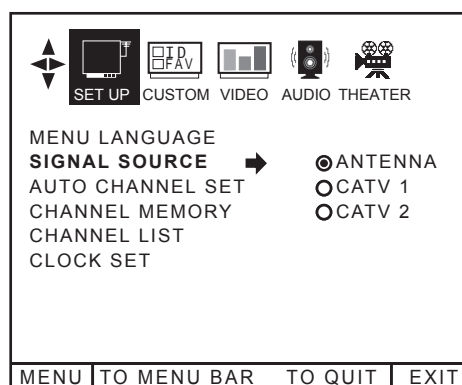
2-2 CH Up/Down

Adjustment Preparation

- (1) Set the TV set so that VHF (11, 13CH), UHF (14, 46, 63CH) and CATV (A, E, P, W CH) can be received.

Adjustment Procedure

- (1) Set Signal Source mode to Antenna on the SET UP menu.
- (2) Select Auto CH set mode and press (►) key on the set up menu. After Auto CH set, operation is completed. By pressing the channel Up (▲) or Down (▼) button, check that the channels having broadcast signal (s) can be received.
- (3) Set Signal Source mode to CATV 1.
- (4) Perform the same operation as in Item (2) and check that CATV can be received correctly.



SET UP MENU

Adjustment Preparation

- (2) Set the CHANNEL LIST mode (in SET UP menu).

Note: CATV channels, actual input channels numbers and indicated channel numbers shown in Table 3 below.

Adjustment Procedure

- (5) Check that the item of SCAN of channels which can be selected as above is ON.

Note 1: CATV channels, actual input channel numbers and indicated channel numbers.

A14
E18
P29
W36

Note 2: This check should be done to both ANT A and B.
(32UX01S and 36UX01S models)

TABLE 3

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
MID BAND								SUPER BAND														
W+1	W+2	W+3	W+4	W+5	W+6	W+7	W+8	W+9	W+10	W+11	W+12	W+13	W+14	W+15	W+16	W+17	W+18	W+19	W+20	W+21	W+22	W+23
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
HYPER BAND																						
W+24	W+25	W+26	W+27	W+28	W+29	W+30	W+31	W+32	W+33	W+34	W+35	W+36	W+37	W+38	W+39	W+40	W+41	W+42	W+43	W+44	W+45	W+46
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
HYPER BAND					ULTRA BAND																	
W+47	W+48	W+49	W+50	W+51	W+52	W+53	W+54	W+55	W+56	W+57	W+58	A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	W+62	W+63	W+64
83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
ULTRA BAND												MID BAND					ULTRA BAND					
W+65	W+66	W+67	W+68	W+69	W+70	W+71	W+72	W+73	W+74	W+75	W+76	W+77	W+78	W+79	W+80	W+81	W+83	W+83	W+84			
106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125			
ULTRA BAND																						

2-3 VOLUME UP/DOWN

Adjustment Procedure

- (1) Check that the volume level and volume indication is going up or down simultaneously by pressing volume Up (▲) or Down (▼) button.



2-4 POWER ON/OFF

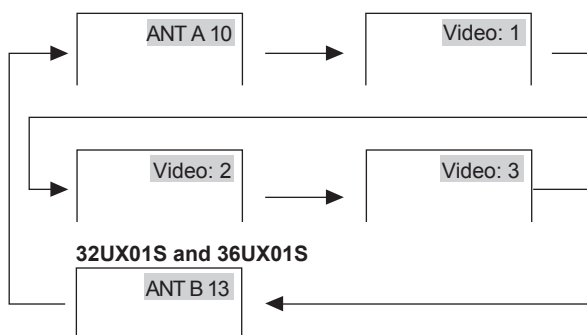
Adjustment Procedure

- (1) Check that the power alternates between On and Off with each press of the Power button.

2-5 INPUT

Adjustment Procedure

- (1) Check that the O.S.D. changes with every press of the Input button, as below.

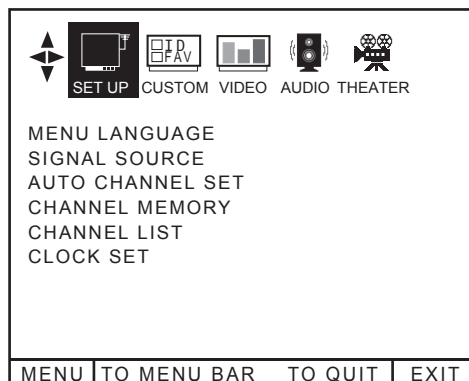


2-6 MENU

- (1) Check that the Menu O.S.D. displays by pressing Menu button.

Note: Menu O.S.D. is displayed as below.

OSD MENU



- (2) After Menu O.S.D. is displayed, check that front panel buttons function change as follows:

Menu	→	MENU
CH Up	→	▲ key
CH Down	→	▼ key
Volume Up	→	► key
Volume Down	→	◄ key

2-7 MENU MODE (using Remo-con)

2-7-1 Set Up Mode

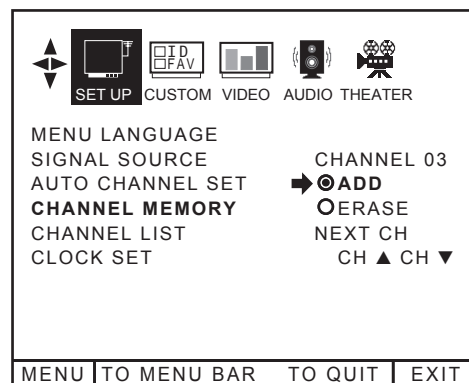
Adjustment Preparation

- (1) Set to CHANNEL MEMORY mode (SET UP Menu).

Adjustment Procedure

- (1) Check the selection of ADD, ERASE by pressing the ▲(▼) button.

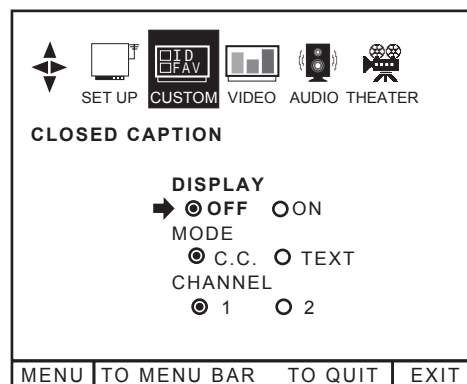
SET UP MENU



Adjustment Preparation

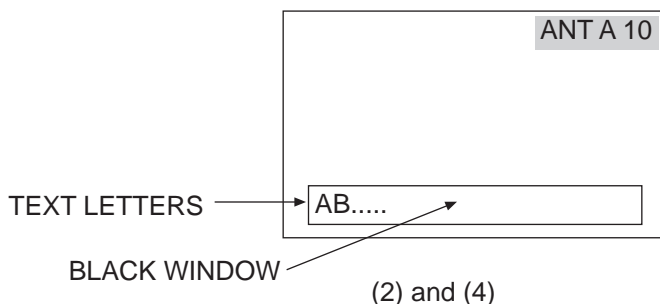
- (2) a. Set the mode to CLOSED CAPTION (CUSTOM Menu)
b. Receive signal having Closed Caption signal.

CUSTOM MENU

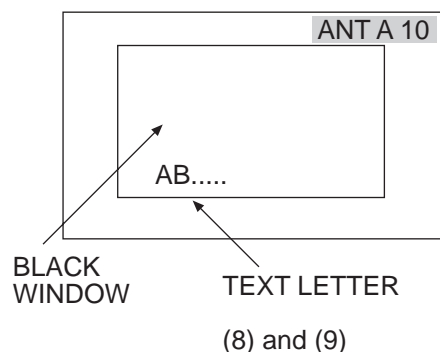


Adjustment Procedure

- (1) Set DISPLAY setting to ON with CURSOR ► .
At this time, set the other settings as follows.
 1. DISPLAY : ON
 2. MODE : C.C.
 3. CHANNEL : 1
- (2) Check that the Caption corresponding to the above setting is displayed on the screen.
- (3) Set CHANNEL to 2.
- (4) Check that the Caption of Channel 2 is displayed on the screen.
- (5) Set CHANNEL to 1.
- (6) Check that the Caption of Channel 1 (Field 2) is displayed on the screen.
- (7) Set the mode to TEXT.



- (8) Check that a black window appears and text letters are displayed at the center of the screen.
- (9) Repeat adjustment procedure from (3) to (6), and check that text letters are displayed corresponding to each mode.
- (10) Set the mode to CAPTION.
- (11) The black window should disappear returning to the state of (2).
- (12) Set ON/OFF to OFF.
- (13) Check that the Caption letters disappear.



Adjustment Preparation

- (3) Set to MENU LANGUAGE mode (SET UP Menu)

Adjustment Procedure

- (14) Check the language selection (ENGLISH, FRENCH, SPANISH) by pressing the ▼(▲) button.

SET UP MENU



2-7-2 Program Mode

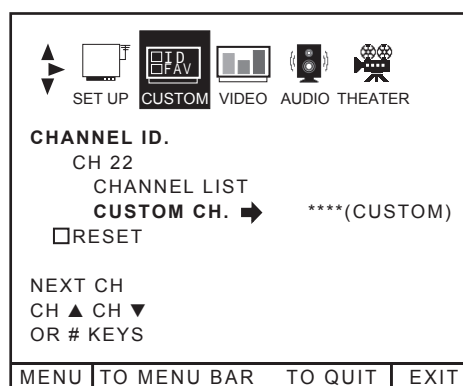
Adjustment Preparation

- (1) Set to CHANNEL ID mode (CUSTOM Menu).
- (2) Select CUSTOM CH by pressing the ▲,▼ button.

Adjustment Procedure

- (1) Select the "A" by pressing the ▲,▼ button, and select the input position by pressing the ►,◄ button.
- (2) After pressing the "Recall" button, check that the indication of "AAAA" is the same as CH No. indication.
- (3) Select the Channel ID mode again. Select "RESET" by pressing the ▲,▼ button and press the ► button.
- (4) Check that the delete of "AAAA" when indicate the CH No., after press the "Recall" button.

CUSTOM MENU



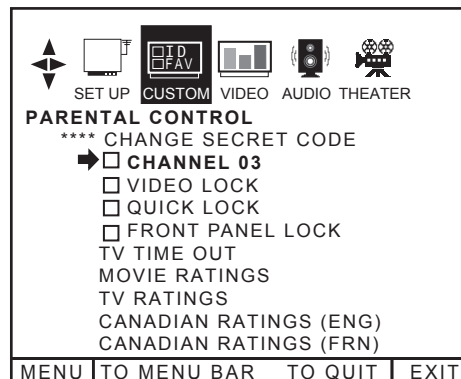
Adjustment Preparation

- (3) Set to PARENTAL CONTROL mode, (CUSTOM MENU).

Adjustment Procedure

- (1) Select PARENTAL CONTROL by ► button.
- (2) Press "7" button 4 times. ("7777" is input.)
- (3) Select CHANNEL mode, and set to on by ► button, check that the picture becomes pitch-dark, and sound does not come out.
- (4) Set to PARENTAL CONTROL mode again.
- (5) Select CHANNEL mode and set to off by ► button.
- (6) Check that the picture and sound return to the previous condition.

CUSTOM MENU



Adjustment Preparation

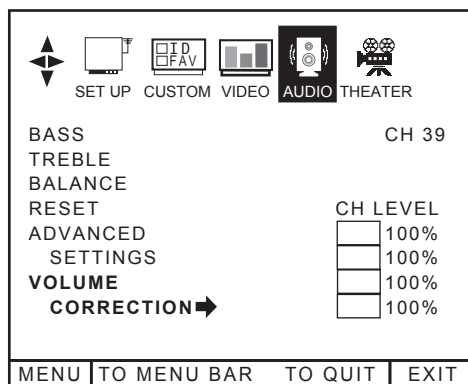
- (4) Set VOLUME CORRECTION mode (AUDIO Menu).

Adjustment Procedure

- (1) Select the registration point using ▲,▼ button and received channel no. is memorized by pressing number buttons.

Note: By key-in "0", "4," then 4CH can be memorized.

- (2) Check that Volume level changes and sets 100%~50% (5% step) using ▲,▼ button.



2-7-3 PARENTAL CONTROL (V-Chip) operation check

Preparation for Adjustment

- (1) Receive a channel with V-Chip signal.
- (2) Push MENU and select CUSTOM menu by using ◀ or ▶ button.
- (3) Select PARENTAL CONTROL by using ▲ or ▼ button.
- (4) Press ▶ button to set PARENTAL CONTROL mode.
- (5) Enter "7777" for SECRET CODE.
- (6) Select MOVIE RATINGS and TV RATING by using ▲ or ▼ button.
- (7) Press ▶ button to set MOVIE RATINGS and TV RATINGS.

Adjustment Procedure

- (1) Select MOVIE RATINGS MPAA (PG) and TV RATINGS (TV-14/ALL BLOCK)
- (2) Check that Picture & audio should be blocked as follows
"RATING BLOCKED" is displayed when picture is blocked.

Receive Signal	TV-PG	MPAA PG	TV-Y7-FV
Picture/Audio Condition	UNBLOCK	BLOCK	UNBLOCK

- (3) Select MOVIE RATINGS MPAA (PG-13) and TV RATINGS (TV-14/ALL BLOCK)
- (4) Check that Picture & audio should be blocked as follows
"RATING BLOCKED" is displayed when picture is blocked.

Receive Signal	TV-PG	MPAA PG	TV-Y7-FV
Picture/Audio Condition	BLOCK	UNBLOCK	UNBLOCK

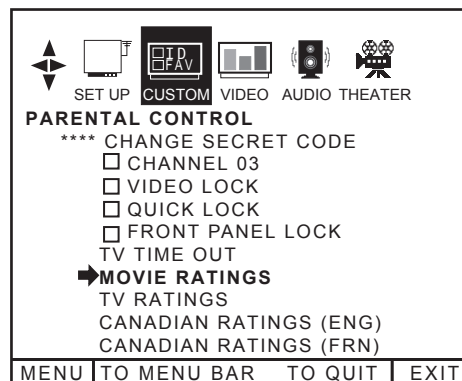
- (5) Select MOVIE RATINGS MPAA (PG-13) and TV RATINGS (TV-Y7/ALL BLOCK)
- (6) Check that Picture & audio should be blocked as follows
"RATING BLOCKED" is displayed when picture is blocked.

Receive Signal	TV-PG	MPAA PG	TV-Y7-FV
Picture/Audio Condition	BLOCK	UNBLOCK	BLOCK

- (7) Same check as (1) to (6) should apply for PIP sub picture. Main picture should receive a channel without V-chip signal. Sub picture should receive a channel with V-chip signal.

NOTE: User setting rating & receipt signal rating are displayed on top area of the screen when RECALL button is pressed.

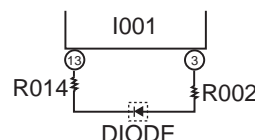
- 1st line : User setting rating.
2nd line : Receipt signal rating.



2-7-4 Clock Mode (Clock Operation Check)

Adjustment Preparation

- (1) Connect a diode as follows

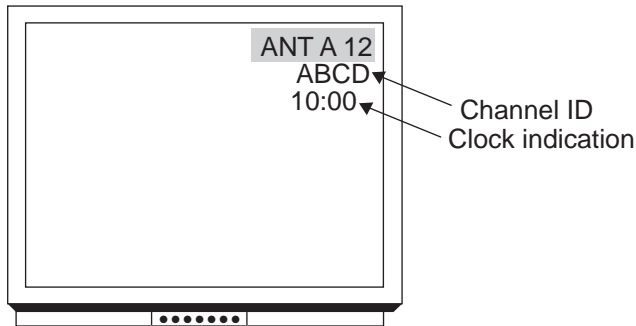


Remarks: The addition of the above circuit intends to check the clock operation, with clock counting in 60 times mode.

- (2) Set to CLOCK SET Menu (SET UP Menu).

Adjustment Procedure

- (1) After clock setting is done perform CH indication (Recall). Check that clock indication is displayed in addition to the CH indication, and that the clock indication is going by 1 second per minute.



2-7-5 Picture Mode

Adjustment Preparation

- (1) Receive color bar signal.
- (2) Press MENU key, and select VIDEO menu
- (3) Set to CONTRAST mode.

Adjustment Procedure

- (2) Check that Contrast is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (3) Set to BRIGHTNESS mode.

Adjustment Procedure

- (3) Check that Brightness is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (4) Set to COLOR mode.

Adjustment Procedure

- (4) Check that Color is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (5) Set to TINT mode.

Adjustment Procedure

- (5) Check that Tint is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (6) Set to SHARPNESS mode.

Adjustment Procedure

- (6) Check that Sharpness is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (7) Set to RESET mode.

Adjustment Procedure

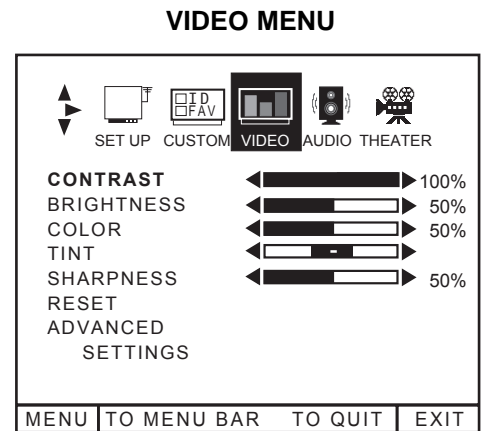
- (7) Check that all picture settings return to delivery settings by pressing ▶ button.

Adjustment Preparation

- (8) Set to COLOR TEMPERATURE mode, (VIDEO, ADVANCED SETTINGS).

Adjustment Procedure

- (8) Check that WHITE CONTROL is changed by pressing ▶ button.



2-7-6 Sound Mode

Adjustment Preparation

- (1) Press MENU key, and select AUDIO menu.
- (2) Set to BASS mode.

Adjustment Procedure

- (1) Check that BASS is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (2) Set to TREBLE mode.

Adjustment Procedure

- (2) Check that TREBLE is changed by pressing control ◀, ▶ buttons.

Adjustment Preparation

- (3) Set to BALANCE mode.

Adjustment Procedure

- (3) Check that BALANCE is changed by pressing control ◀, ▶ buttons.

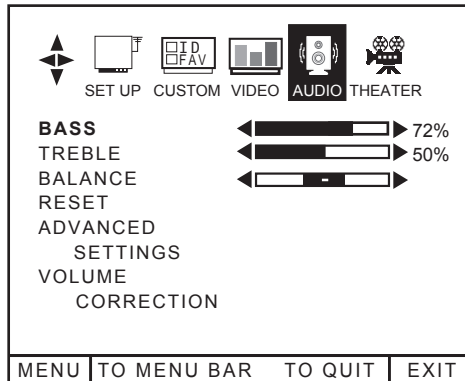
Adjustment Preparation

- (4) Set to RESET mode.

Adjustment Procedure

- (4) Check that all sound setting modes return to delivery settings by pressing ► button.

AUDIO MENU



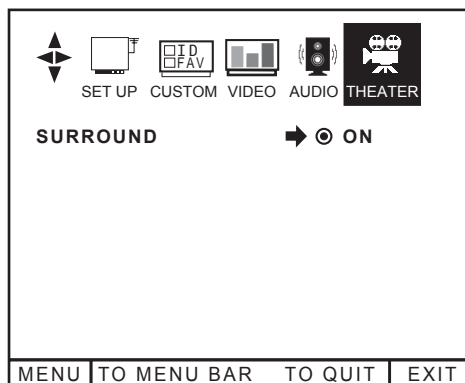
Adjustment Preparation

- (6) a. Input stereo sound signal to VIDEO: 1 terminals, and set "VIDEO: 1" by Input button.
- b. Set to SURROUND menu (THEATER menu):

Adjustment Procedure

- (6) Check that sound becomes louder when set to on mode by ▲, ▼ button.

THEATER MENU



V. DEFLECTION CIRCUIT PICTURE ADJUSTMENT OPERATION CHECK

1. HIGH VOLTAGE LIMITER CIRCUIT OPERATION CHECK AND OVER VOLTAGE PROTECTION CIRCUIT OPERATION CHECK.

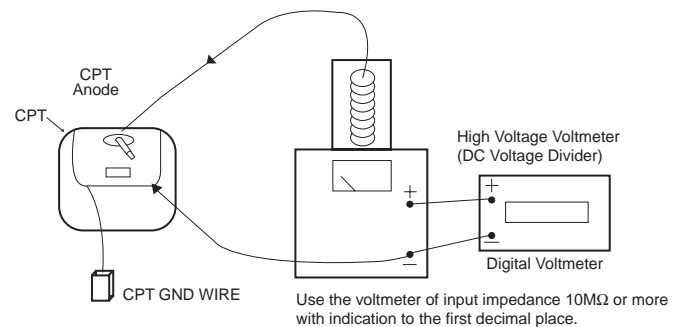
Adjustment Preparation

- (1) Connect a high voltage voltmeter between CPT anode terminal (Anode cap side) and the ground as below.
- (2) Set AC input voltage to $120 \pm 3V$.
- (3) Receive circle pattern and set "BRIGHTNESS" and "CONTRAST" to max. Adjust Screen VR so that beam current is $I_B \pm 0.1mA$. (The voltage of ABL terminal-C747 both ends should be 12V or less.)

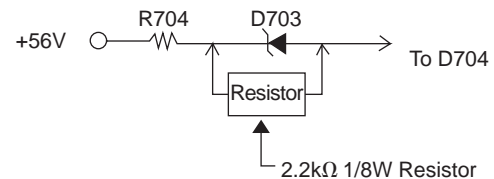
Adjustment Procedure

- (1) Check that the normal high voltage and +B voltage as below.

CHASSIS	EHT $\pm 1KV$	$1B \pm 0.1mA$	+B
36UX01S/36GX01B	$30.0 \pm 1KV$	$1.7 \pm 0.1mA$	$140 \pm 0.3V$
32UX01S/32UX01B	$29.0 \pm 1KV$	$1.5 \pm 0.1mA$	$140 \pm 0.3V$



- (2) Connect a 2.2kΩ 1/8W Resistor to both ends of D703 and check that power is turned off.



- (3) Disconnect the AC plug and remove 2.2kΩ 1/8W Resistor.

2. FBT PROTECTION CIRCUIT OPERATION CHECK

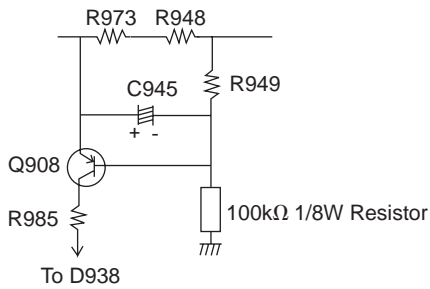
Adjustment Preparation

- (1) Set "CONTRAST" to maximum, "BRIGHTNESS" to center.

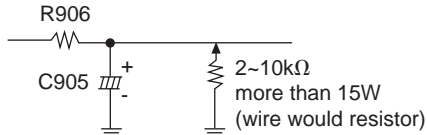
Adjustment Procedure

- (1) Connect a 100kΩ 1/8W Resistor between Q908 base and ground, check that picture disappears. See figure A.

Figure A



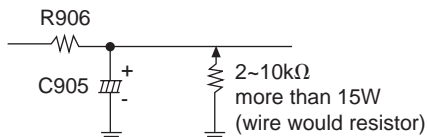
- (2) Immediately after checking, disconnect the TV set power cord.
- (3) Discharge C905 as follows.



3. LOAD SHORT PROTECTION CIRCUIT OPERATION CHECK.

Adjustment Procedure

- (1) Receive circle pattern signal.
- (2) Set "CONTRAST" to maximum and "BRIGHTNESS" to center.
- (3) Check the Cathode voltage of D939, D952, and D953. Confirm the voltage should be more than 1.5V.
- (4) Short-circuit both ends of R961 and check that the picture disappears within 2~3 sec.
- (5) Disconnect short-circuit of R961 and the TV set power cord.
- (6) Discharge C905 as follows.



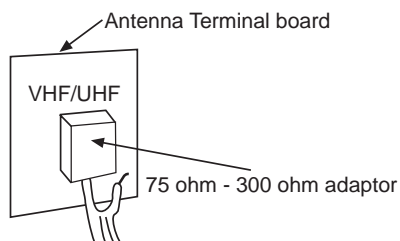
4. WEAK ELECTRIC FIELD CHECK

Adjustment Preparation

- (1) Connect one side of the 300 ohm feeder to 75 ohm ~ 300 ohm antenna adapter. Connect the antenna adapter to the VHF antenna terminal board as shown below.
- (2) Turn to no signal condition.

Adjustment Procedure

- (1) Check that the phenomena such as oscillation and abnormal beat, etc. do not occur in all the channel.



VI. REMO-CON OPERATION CHECK

1. DIRECT CHANNEL SELECTION

Adjustment Procedure

- (1) Input 2 or 3 digits of channel number with the buttons of the Remo-con "0-9." Check that the input number and the on-screen display number are the same. (At 100CH selection, press "1" and after 2 seconds, press "0" two times.

1 — → 1 — —
After
2 seconds

2. LST-CH (LAST CHANNEL RECALL)

Adjustment Procedure

- (1) Check that the set receiver alternates between the channel which is being received and the channel which was previously received with each press of the "LST-CH" button of the Remo-con.

3. MUTE

Adjustment Procedure

- (1) Check that the sound alternates between SOFT MUTE, MUTE and MUTE OFF by every pressing of "MUTE" button on the Remo-con. At this time, check the MUTE indication:

MUTE off	Yellow
SOFT MUTE	Magenta
MUTE	Magenta
- (2) Check that sound level goes to 1/2 level at SOFT MUTE.
- (3) Check that sound level goes to 0 at MUTE mode.

4. RECALL

Adjustment Procedure

- (1) Check that on-screen channel no. indication appears by pressing the "RECALL" button of the Remo-con.

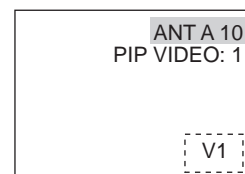
5. P IN P (36UX01S/32UX01S only)

Adjustment Preparation

- (1) Connect signal to ANT A and receive it.
- (2) Connect signal to VIDEO: 1 Input.

Adjustment Procedure

- (1) Check that with each press of the "PIP" button of Remo-con, sub-picture alternates between On and Off. When sub-picture is On, check that the channel numbers are displayed as below.



6. MOVE

Adjustment Preparation

- (1) Press "PIP" button to set to PinP mode.

Adjustment Procedure

- (1) Check that with each press of the "MOVE" button on Remo-con, sub-picture moves counterclockwise.

Note: When sub-picture is in the upper left of the screen, the channel number of main picture comes to the lower right, as shown below.



7. SWAP

Adjustment Preparation

- (1) Press "PIP" button to set to PinP mode.

Adjustment Procedure

- (1) Check that with each press of the "SWAP" button, the contents of main picture and sub-picture are exchanged.

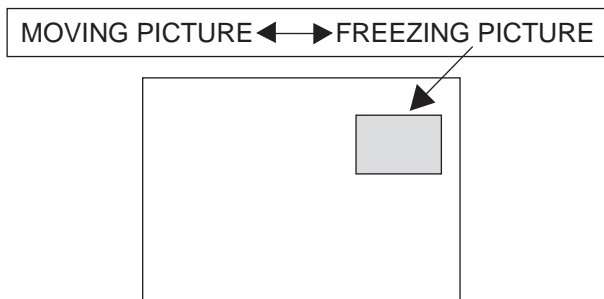
8. FREEZE

Adjustment Preparation

- (1) Connect signal to ANT A and video. (One or both of the pictures should be moving picture.)
- (2) Press "PIP" button to set PinP mode.
- (3) Sub-picture should be moving picture.

Adjustment Procedure

- (1) Check that with each press of the "FREEZE" button, sub-picture alternates between moving picture and freezing picture.



- (2) Press "PIP" button to make sub-picture disappear.

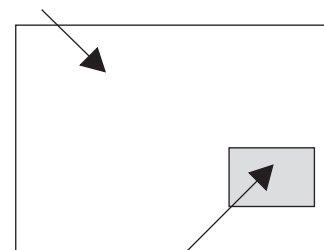
Adjustment Preparation

- (1) Connect signals to ANT A and Video Input. Both signals should be moving picture.
- (2) Set PinP to off.

Adjustment Procedure

- (1) Check that freezing picture of main screen appears as a sub-picture by pressing "FREEZE" button on the Remo-con.
- (2) Check it also in the TV and Video modes.
- (3) Check that the frozen sub-picture disappears by pressing "FREEZE" button.
- (4) Check that the frozen sub-picture turns to normal PinP sub-picture by pressing PIP button.

MOVING PICTURE



SUB PICTURE

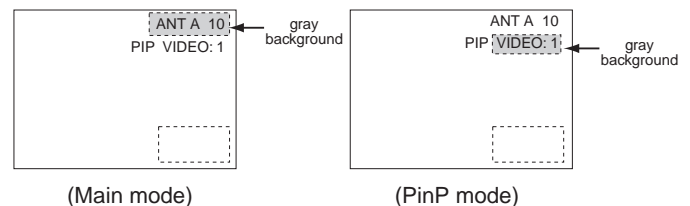
9. PINP CH (36UX01S/32UX01S models).

Adjustment Preparation

- (1) Connect the signal to ANT A and VIDEO: 1.
- (2) Press "PIP" button to set PinP mode.

Adjustment Procedure

- (1) Check that OSD changes as follows by pressing "PIP CH" button.



- (2) Set PIP CH to PinP mode.
- (3) Check that PinP sub-picture changes by channel ▲, ▼, and "INPUT" key and receives normal picture.

Note: PIP CH Function not available for 36UX01S/32UX01S models.

VII. MEMORY INITIALIZE (2)

After all of the adjustments of main chassis are finished, perform memory initialize. (Operation in Item III)

VIII. FINAL ASSEMBLY ADJUSTMENT/ COMMON SERVICE ADJUSTMENT

1. PURITY CONVERGENCE ADJUSTMENT

Note: For ITC type A90LPY30X01 apply item 1.2 (8) (Purity check). For A80LJF30X(W), apply item 1.1-1.2 (8).

1-1 Adjustment Preparation

- (1) Keep DY stick to CPT funnel.
- (2) Turn ON the set and receive cross-hatch signal (or circle pattern signal). Adjust the static convergence coarsely according to item (VIII, 1-4).
- (3) Receive white pattern signal and adjust the white balance according to item 4-6.
- (4) Set BRIGHTNESS control and CONTRAST control to maximum and apply heat-run to the set with circle pattern signal received for 40 min. or more.

1-2 Purity Adjustment

THIS ADJUSTMENT METHOD APPLIES TO THE PURITY ADJUSTMENT BY USING MICROSCOPE.

- (1) Adjust coarsely White balance, Static convergence (center) and Focus.
- (2) Receive circle pattern and heat-run more than T minutes with CONTRAST and BRIGHTNESS to maximum. Do not delete the raster nor vary the current before fixing the position of DY. Heat-run should be done with perfect raster. (DY and tilt should have been coarsely adjusted.)

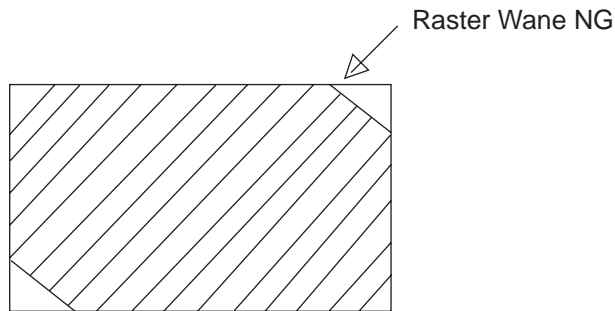


TABLE 1

CPT	T
A80LJF30X(W)	40 Min.

- (3) The magnetic field in artificial magnetic field should follow the table below and the set should face as in Table 2. Degauss it from outside.

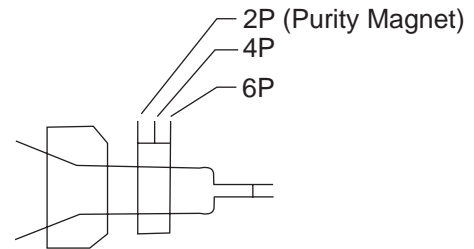
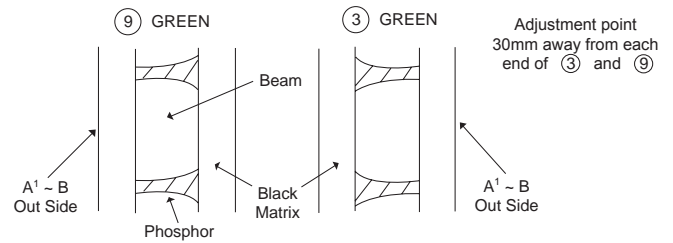
DESTINATION	VERTICAL FIELD	HORIZONTAL FIELD
USA	0.45G	0.3 G
CANADA	0.54G	0.15G
UNIVERSAL	0.35G	0.3 G
PANAMA, HAWAII	0.2 G	0.3 G

TABLE 2

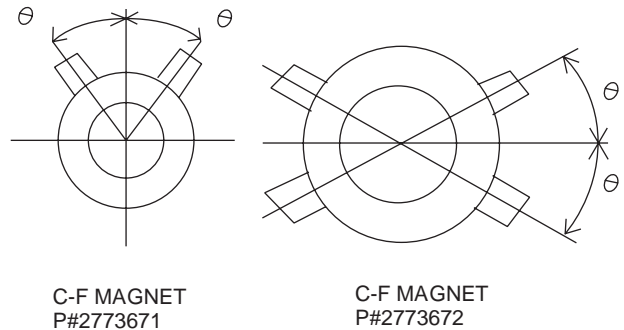
Directions for adjustment

A80LJF30X(W)	North
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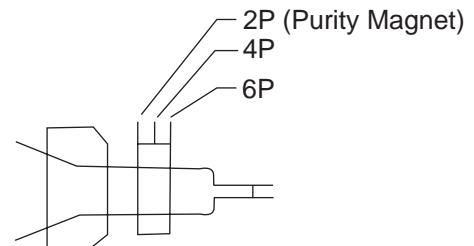
- (4) Adjust the position of purity magnet and DY. Keep the landing balance of ③ and ⑨, and adjust so that the landing of ③ and ⑨ is as follows while observing with a microscope.



- (a) Open the purity magnet as follows in order to move the raster only in the right-left direction.



Keep the balance of ③ / ⑨ DY landing

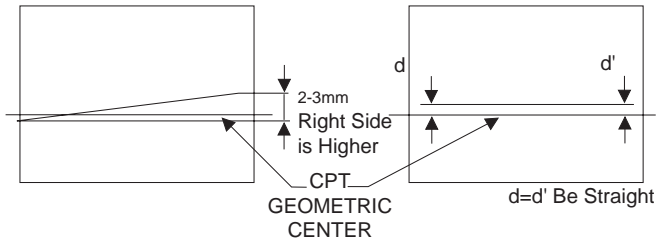


- (b) YPB (Yoke pull-back) should be as follows. (Distance between the bumped position of DY toward the funnel and the just-landing position of ③ and ⑨.)

(c) DY tilt should be as follows.

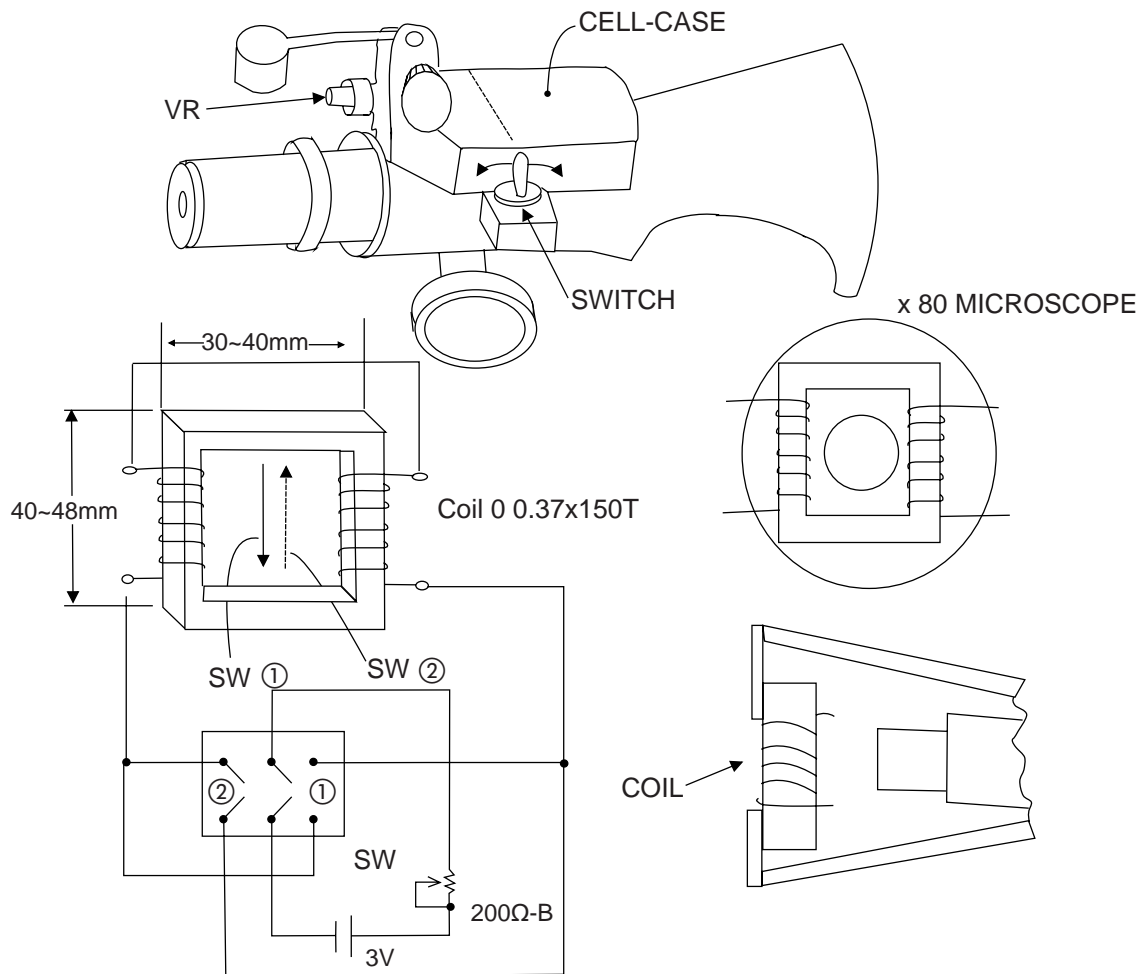
FACE: North

FACE: East



- (5) Fix DY with fixing torque of 14kg.cm.
Control the torque by an electric driver.
- (6) If any miss landing occurs, correct with magnets.
At this time, if the white unevenness is all right, magnet is not needed.
- (7) After peripheral convergence is adjusted, check the position of DY and tighten the DY again.
(14kg.cm)
- (8) Purity check
The magnetic field in artificial magnetic field should follow the magnetic field according to the destination, and the set should face as follows.
After degaussing in each direction, check these items visually and with a microscope.
 - (a) No problem in white unevenness.
 - (b) Each single color must not hit any other colors.
 - (c) If white or any single color is defective, apply a magnet(s) on CPT for correction.
If any magnet is applied, check it after degaussing.

THE MICROSCOPE



Fix coil to CRT side of microscope. Set it upside down and measure it. Check that beam moves to the right and left equally in quantity. Be careful at assembly that core does not tilt because upward (downward) magnetic field by coil moves the beam to the right (left) or type MS-50X microscope of KANSAI DENKI.

1-3 Purity Adjustment

(This adjustment method applies to purity adjustment by hand operation.)

- (1) Use an artificial magnetic field and set the field strength as follows.

*Magnetic field in CPT axis direction: 0 Gauss

*Magnetic field which is vertical to CPT axis:

U.S.A., Hawaii, Panama, Guam

Bolivia, Peru, Universal.....0.3 Gauss

Canada.....0.15 Gauss

Taiwan.....0.37 Gauss

(The direction of the magnetic field should be from the left side to the right side of the CPT screen as you face it.)

- (2) Adjust Focus coarsely according to Focus Adjustment page 40.

- (3) Adjust Convergence coarsely according to item 1-4 and 1-5. (Page 39~40)
- (4) Receive Circle Pattern signal and check that Contrast and Brightness are maximum.
- (5) Receive magenta signal. When the magenta signal is not available, short-circuit between the base and emitter of Q855 and set to magenta.
- (6) Press DY fully against CPT funnel and turn the purity magnet so that the vertical magenta band comes to the center of the picture (Fig. 1-3-1). Check that color unevenness of both sides are approximately equal at this time. The openings of the purity magnet should be symmetric (Fig. 1-3-2).

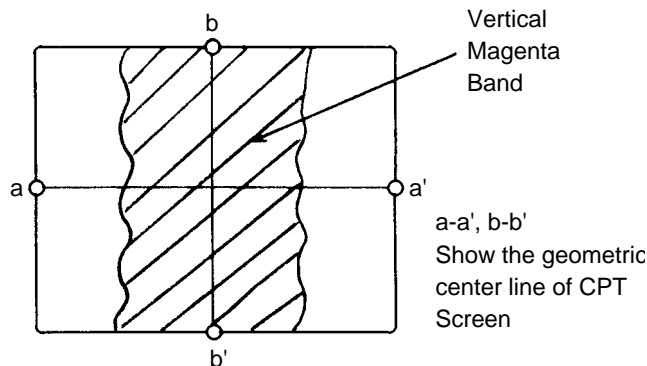


FIGURE 1-3-1

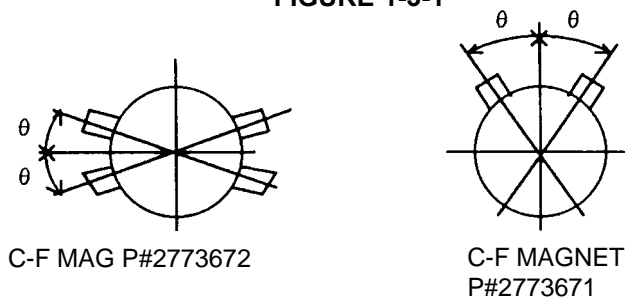


FIGURE 1-3-2

The openings of the purity magnet should be symmetric: on the right and left sides (P#2773671) on the upper and lower sides (P#2773672)

- (7) Receive the single red signal. When the single red signal is not available, short circuit between the base and emitter of Q845, and between the base and emitter of Q857 and set to single red.
- (8) Pull back DY gradually and when the color unevenness of both sides of the picture disappear, mark the rear edge position of DY on the tape wound around CPT neck as shown in Figure 1-3-3. Pull back DY further and just before the color unevenness of both sides of the picture disappear, mark the rear edge position of DY on the tape in the same way. At this time, pull back DY so that the center axis of DY and CPT axis match.

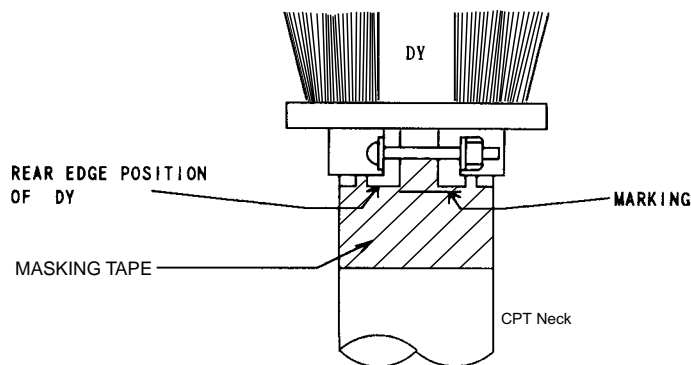
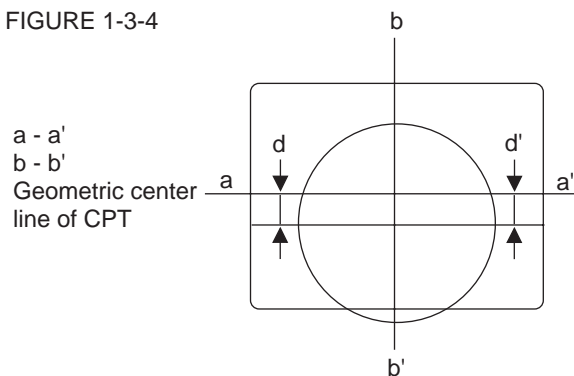


FIGURE 1-3-3

- (9) Move DY so that the rear edge position of DY comes to the center of the two marked lines and fasten DY as $d=d'$ (Figure 1-3-4). Further insert the rubber wedge between DY and CPT funnel from the top and raise DY backwards.

FIGURE 1-3-4



- (10) Set CRT axis direction magnetic field of the artificial magnetic field according to the artificial magnetic field setting list classified by destination. (The direction of the magnetic field should be from the CPT screen side to the neck side.)
- (11) After degaussing it from outside, check the purity in each color to R, G and B visually. Then, turn the screen to white and check the landing at the screen position shown in Fig. 1-3-5 with a microscope.

Criteria with microscope

There should be no miss landing at positions 2, 4, 8 and 10. Green beam should be at center of the green phosphor at position C. (Refer to the miss landing criteria.)

- (12) Turn over the direction of CPT axis direction magnetic field of the next artificial magnetic field and check it by the same way as item (11). The positions of miss landing criteria with a microscope should be 2, 4, 8 and 10 (Figure 1-3-5).

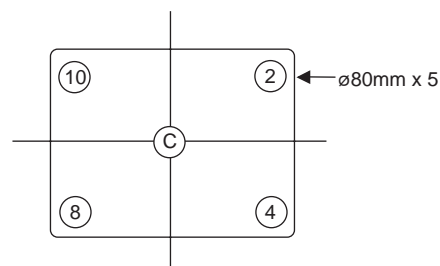


FIGURE 1-3-5

Miss landing criteria

The following conditions are defined as miss landing. Each color beams shines on the phosphor of the applied color and there are phosphor parts which are not luminous (shaded parts in

the right figure) between the luminous parts and black matrix. Or, each color beam shines on the phosphor of not applied color.

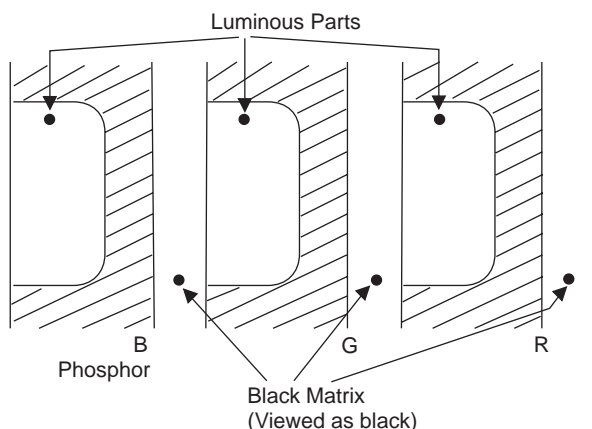


FIGURE 1-3-6 Enlarged view of screen with microscope

- (13) To improve the miss landing mentioned above, it's acceptable to stick the permanent magnets to CPT funnel (Figures 1-3-7 and 1-3-8).

Usage

Apply a silicone rubber KE-40 WRTV to the permanent magnet shown in the Figure, adhere it to the CPT funnel and then fix it with permaseal tape P212.

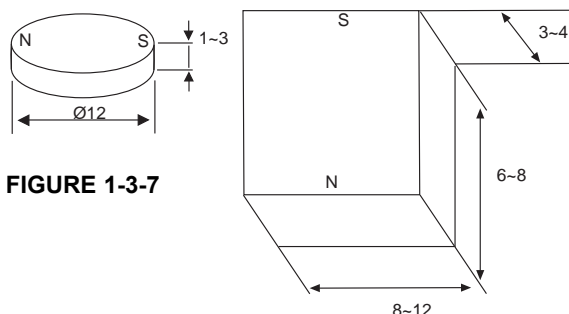
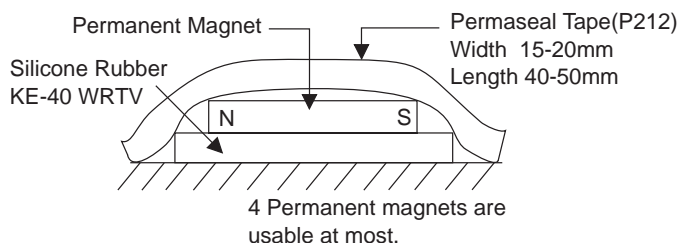


FIGURE 1-3-7

FIGURE 1-3-8



- (14) Final purity criteria should satisfy the miss landing criteria.
(15) When delivering the sets, set CPT axis direction magnetic field to 0 Gauss and degauss it from outside.

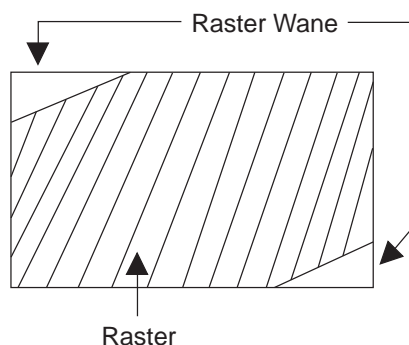
Table 3

Artificial magnetic field setting list classified by destination.

DESTINATION	Vertical Field	Horizontal Field
USA	0.45 G	0.3 G
CANADA	0.54 G	0.15 G
UNIVERSAL	0.35 G	0.3 G
PANAMA, HAWAII	0.2 G	0.3 G
TAIWAN	0.22 G	0.37 G

Notes for pre-heat

Before pre-heating, stick DY to CPT funnel and fix it so that the raster is perfect.



If the raster is imperfect like the left figure, CPT neck is in danger of cracking because the beam may hit it.

1-4 Static Convergence Adjustment (Screen center part) (Except ITC CPT)

- (1) Receive a cross-hatch signal and set Brightness to the center and Contrast to minimum.

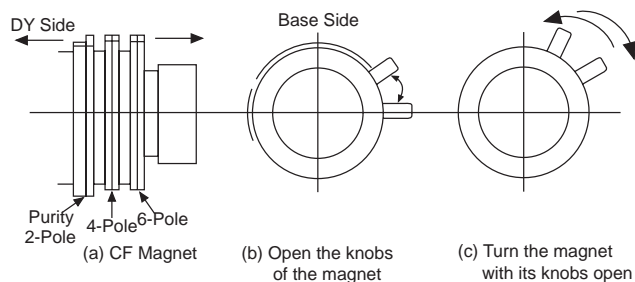


FIGURE 1-4-1

- (2) Open the knobs of 4-pole magnet (2 sheets) (Figure 1-4-1(b)) and match the blue/red vertical lines at the center of the screen as shown in Figure 1-4-2(a).
(3) Turn the 4-pole magnet with its knobs open (Figure 1-4-1(c)) and match the blue/red horizontal lines as shown in Figure 1-4-2(b).

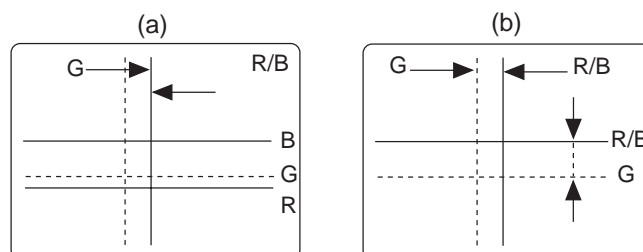


FIGURE 1-4-2

1-5 Dynamic Convergence adjustment (Except ITC CPT type)

- (1) Insert an adjustment wedge (temporary) between the top of DY opening and CPT funnel as shown in Figure 1-5-1. By inserting the wedge gradually, match the red and blue vertical lines at the top and bottom of the screen and also match the red and blue horizontal lines of both sides of the screen as shown in Fig. 1-5-2(a).
- (2) Adjust by swinging in the right/left directions of DY while observing 6 and 12 horizontal lines of the screen and match the red and blue horizontal lines. As shown in Fig. 1-5-2(b), when the blue is outside from the red on CPT screen, insert the DY fixing wedge between the right-side DY viewed from the rear of CPT and CPT funnel.
- (3) As shown in Fig. 1-5-2(c), when the blue is inside from the red on CPT screen, insert the wedge between the left-side DY and CPT funnel.
- (4) Insert two DY fixing wedge with approximately 120° to the fixing wedge inserted in item (2) or (3) and remove the adjustment wedge (temporary). Use the DY fixing wedge after peeling off the tape. After proper location, press and adhere it to the funnel.

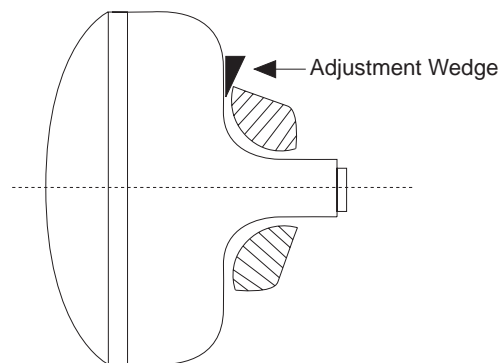


FIGURE 1-5-1

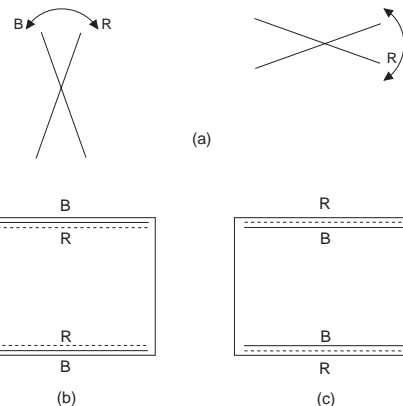
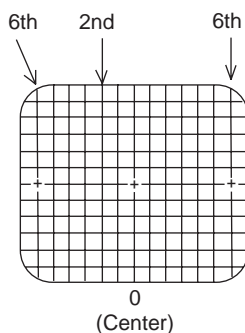


FIGURE 1-5-2

2. FOCUS ADJUSTMENT

NO.	MODEL	CPT	CONDITION	Focus VR setting position
1	36UX01S	A90AHH50X01 (TOSHIBA)	<ul style="list-style-type: none"> Receive the cross-hatch signal Contrast control: Maximum Sharpness control: Center Brightness control: Where the background is set 	Turn the Focus VR gradually clockwise from the full counterclockwise position. Then set it to the point where the focus of 5th vertical line from the screen center becomes best.
2	36GX01B	A90LPY30X (HED-US)	<ul style="list-style-type: none"> Same as above 	Turn the Focus VR gradually clockwise from the full counterclockwise position. Then set it to the point where the focus of 7th horizontal line from the screen center becomes best.
3	32UX01S 32GX01B	A80LJF30X (W) (HED-US)	<ul style="list-style-type: none"> Receive the cross-hatch signal Contrast control: Maximum Sharpness control: Center Brightness control: Where the background is set 	Turn the Focus VR gradually clockwise from the full counterclockwise position. Then set it to the point where the focus of 6th horizontal line from the screen center becomes best.



1.0 Deflection circuit picture adjustment

1-1 Horizontal center adjustment

Adjustment Preparation

- (1) Apply heat-run 5 min or more after the power is turned on.
- (2) Receive circle pattern signal.
- (3) Set CONTRAST max. and others center.
(Adjustment code P08)

Adjustment Preparation

- (1) Adjust horizontal center so that difference of right and left size marker is within 0.5 by changing data.
(Adjustment code P08)

1-2 Vertical size adjustment

Adjustment Preparation

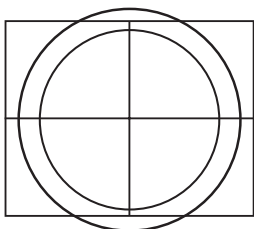
- (1) Apply heat-run 5 min. or more after the power is turned on.
- (2) Receive circle pattern signal, and set CONTRAST max. and others center.
- (3) The set should be facing North or South.
- (4) Set to adjustment code as follows.

Adjustment mode	Adjustment Code
Vertical Position adjustment	P10
Vertical Size adjustment	P11

Adjustment Procedure

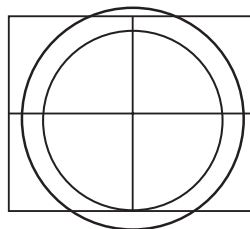
- (1) Adjust vertical center and size so that the outer circle of the circle pattern is like the figure below, by changing data.

(i) Standard Condition



Center Inner Circle to the Screen.

- (ii) When the picture center is above CRT center at V center is min.



When the picture center is above CRT center, adjust so that the bottom of the outer circle comes in contact with the bottom of the screen.

1-3 Side pin distortion adjustment

Adjustment Preparation

- (1) Receive Crosshatch signal and set CONTRAST to max.

Adjustment Procedure

- (1) Set adjustment code as follows.

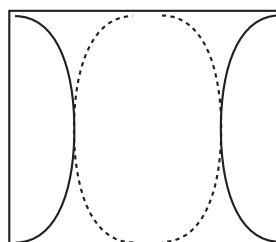
Adjustment mode	Adjustment Code
E/W PARABOLA adjustment	P12
E/W CORNER adjustment	P16

- (2) Adjust data so that the line of the right and left are straight.

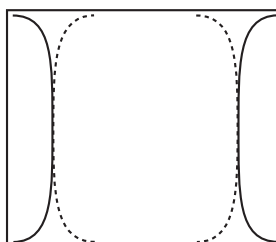
spec. $D_L, D_R \leq 5\text{mm}$ (For 32V)

spec. $D_L, D_R \leq 7\text{mm}$ (For 36V)

P12



P16



1-4 Horizontal size adjustment

Adjustment Preparation

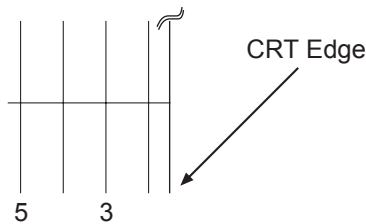
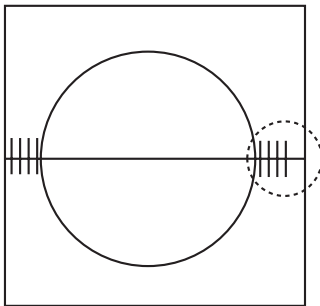
- (1) Receive Hitachi Circle Pattern signal.
- (2) Set CONTRAST to max. and BRIGHTNESS to center.

Adjustment Procedure

- (1) Set to adjustment code as follows

Adjustment mode	Adjustment Code
H SIZE adjustment	P09
H POSITION adjustment	P08

- (2) Adjust data so that the horizontal size markers at the right are 1.5 (+0.5. -0).



1-5 E/W trapezoid adjustment

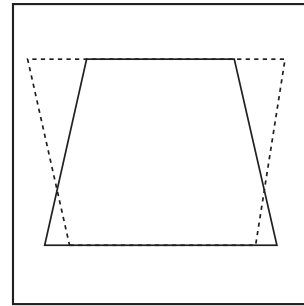
Adjustment Preparation

- (1) Receive Hitachi Circle Pattern signal.
- (2) Set CONTRAST to max. and BRIGHTNESS to center.

Adjustment Procedure

- (1) Set to adjustment code as follows

Adjustment mode	Adjustment Code
E/W TRAPEZOID adjustment	P15



X. White Balance

1. White Balance Adjustment

Adjustment Preparation

- (1) Apply heat-run 10 min, or more after the power is turned on.
- (2) Check that the purity adjustment has been completed.
- (3) Set the vertical incident illumination on the CRT surface to 20 Lux or less.
- (4) Receive white raster signal.
- (5) Set to adjustment code.
- (6) Turn the screen adjusting VR fully counter-clockwise.
- (7) Press MENU button enter vertical collapse mode.

Adjustment Procedure

- (1) Turn the screen adjusting VR clockwise gradually until horizontal line appears slightly on the surface CRT.
- (2) No longer change the cut off data named "data A" of a color which appears at the first.
- (3) Adjust the cut off data except "data A", so that the red, green and blue bright colored line appear on the screen equally.

Cut off data address	Adjustment Code
R cut off	P03
G cut off	P04
B cut off	P05
G drive	P01
B drive	P02

- (4) Escape from vertical collapse mode by pressing MENU button again.
- (5) Adjust picture control so the indication of the brightness meter is 80% of the full scale. Then, set G and B drive data and adjust the high-brightness white balance.
- (6) Set PICTURE control to min. and check that the low-brightness white balance without using a mirror.
- (7) When the low brightness white balance is not obtained, adjust other low-brightness cut off data except "data A" and return to item (6).
(low-brightness 10~15cd/m²)

White balance color temperature setting
10800°K-7MPCD.

$$\begin{cases} X=0.278\pm0.003 \\ Y=0.280\pm0.003 \end{cases}$$

- (8) Set COLOR TEMPERATURE to WARM, and check that color temperature is approx. 7200°K.

2 Sub-black level adjustment

Adjustment Preparation

- (1) Apply heat-run for 10 min. or more after the power is turned on.
- (2) Receive Hitachi color bar.
- (3) Set CONTRAST and COLOR controls to min.
- (4) Set the vertical incident illumination on the CRT surface to 20 Lux or less.
- (5) Set BRIGHTNESS control to the center position.
- (6) Set to adjustment code P06.

Adjustment Procedure

- (1) Adjust the Sub Brightness data to be set background of A1 to black and A2 to lighter black.
- (2) Check the CRT surface directly, without using a mirror.

W 75%	Y	CY	G	MG	R	BL
A7	A6	A5	A4	A3	A2	A1
B						
D						
Q	I	W100%		BLK		

The background is set to black.
Perform the adjustment without
observing the boundary parts.

The background is set to
lighter black.

3 Sub picture adjustment

3-1 Sub picture white balance adjustment

Adjustment Preparation

- (1) Item 3.5 and 3.6 should be finished before this adjustment.
- (2) Turn of the sub picture by pressing "PinP" key of the remote controller. (Keeping the white signal with main picture and sub picture)
- (3) Condition should be set as follows.

$$\begin{cases} \text{Contrast-center} \\ \text{Brightness-center} \\ \text{Others-center} \end{cases}$$
- (4) White signal spec. amplitude 77% white (1.1V 75Ω open except sync.)

Adjustment Procedure

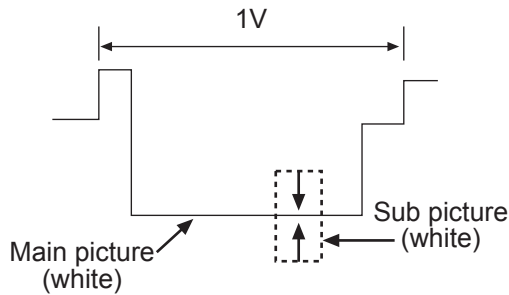
- (1) Set to IR adjustment mode.

Adjustment mode	Adjustment Code
BLUE adjustment	S03
GREEN adjustment	S02
PIP CONTRAST adjustment	S06

- (2) Observe Q851 collector on the CRT P.W.B. and change the PIP CONTRAST adjustment data so that the amplitude of sub picture is the same as that of the main picture.
- (3) Similarly, observe Q854 collector on the CRT P.W.B. and change the GREEN adjustment data and adjust so that the amplitude of the sub picture is the same as that of the main picture.
- (4) Similarly, observe Q857 collector on the CRT P.W.B. and turn the BLUE adjustment data and adjust so that amplitude of the sub picture is the same as that of the main picture.

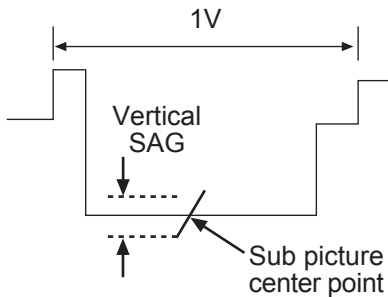
- (1) Check the matching of the white balance of sub picture with the main picture.

- Adjustment specification : ±1V
- Quality control specification : ±1V
- Waveform of Q851/Q854/Q857 (R/G/B) = cathode.
(Sub picture level compared with main picture level.)



Oscilloscope range : 10V/0.2msec

- If the sub picture sag to vertical direction, adjust the sub picture center point.



- Perform this adjustment after the white balance and Sub-brightness adjustments of the main picture are completed.
- White balance 10800° K - 7MPCD
(Color coordinates : x=0.278, y=0.280)
- Refer to the sub-brightness adjustment for details of the gray scale of color bar signal.

IX. MATCHING CHECK WITH OTHER INSTRUMENTS

1. VIDEO:1 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

- (1) Input the video signal to VIDEO 1 IN terminal.
The video signal level should be within 1 ± 0.2 Vp-p (75 ohm termination) with 100% white signal at this time.
- (2) Input the audio signal to the AUDIO 1 IN terminal. The audio signal should be $500\text{m} \pm 20\text{m}$ Vrms at this time. (Connect VCR or TV tuner.)
- (3) Connect an audio AMP to the AUDIO OUT terminals. (Or connect AUDIO IN terminals of a standard monitor instead.)

Adjustment Procedure

- (1) Check that the set receives signal then select the Input mode by pressing the INPUT (FUNCTION) button of front panel of the set or remote control.
- (2) When external input is performed, the video and audio should not be abnormal.
The 100% white signal that RF input receives should be as bright as the video signal 1Vp-p (75 ohm termination).

As for the sound, when the 100% modulation that RF input receives is 25KHZ, DIV., the sound level should be as much as external audio signal (500 Vrms) level.

2. VIDEO 2 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

- (1) Same as 1 (1).

Adjustment Procedure

- (1) Check that the set receives signal at INPUT 2 mode.

3. VIDEO:3 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

- (1) Same as (1)

Adjustment Procedure

- (1) Check that the set receives signal at INPUT 3 mode.

4. S-IN:1 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

- (1) Connect the video/chroma signal to S-IN:1 terminal.
- (2) Connect the sound signal to AUDIO:1 input terminals.

Adjustment Procedure

- (1) Check that the set receives S-Video signal at INPUT 1 mode.

5. COMPONENT INPUT CHECK

Adjustment Preparation

- (1) Connect the component signal to component terminals.
- (2) Connect the sound signal to AUDIO:2 input terminals.

Adjustment Procedure

- (1) Check that the set receives component signal at INPUT 2 mode.
- (2) Check that Recall OSD shows "Y-PBPR"

6. AUDIO OUT LEVEL CHECK

Adjustment Preparation

- (1) Input the same audio signal at item 1(2) to AUDIO IN terminal (L). At this time, connect nothing to R terminal.
- (2) Input the same audio signal as item 1(2) to AUDIO:1 IN terminal (R). At this time, connect nothing to L terminal.
- (3) Check that the normal sound is output from both sides of the speakers when signal in item (1) is input.
- (4) Check that the normal sound is output from only the right (R) speaker when signal in item (2) is input.

Adjustment Procedure

- (1) Check that the audio output of AUDIO AMP connected to AUDIO HiFi OUT terminal changes according to the "VOLUME" of the set.
- (2) Confirm that the output level of item (1) should be 1 Vrms (2.8 Vp-p)±20%. (Above level is equivalent to VOL. MAX. 100% modulated signal input.)

XII. SAFETY CHECK

1. POLARITY CHECK

This check is performed according to UL standard requirement. There should be electricity between AC Power Cord and Chassis Earth.

XIII. MTS OPERATION CHECK

1. STEREO/SA BROADCAST RECEIVING CHECK

Adjustment Preparation

- (1) Set the TV set so that a MTS broadcast (STEREO/SAP) can be received.



- (2) Set MTS mode to STEREO or SAP mode.
Note: To select between "STEREO/SAP," display sound setting of MTS mode and Select AUDIO MENU
- (3) Set BALANCE to the center.

Adjustment Procedure

- (1) When one of the MTS broadcast stereo SAP is received, check that "ST" or "SA" is displayed on the screen.

- (2) Stereo broadcast receiving check
 - (a) Select MTS mode and press cursor ► button to display "STEREO" on the screen.
 - (b) When only Lch signal is received, Lch sound comes out from the left speaker.
 - (c) When only Rch signal is received, Rch sound comes out from the right speaker.
 - (d) When monaural signal is received, monaural sound comes out from both the right and left speakers.
- (3) SAP broadcast receiving check
 - (a) Select MTS mode. Press cursor ► button to display "SAP" on screen.
 - (b) SAP signal comes out from both of the right and left speakers.
 - (c) When to SAP signal, the sound on "MAIN" side (refer to (3)) comes out.

Note: When the RECALL button is operated, "STEREO", "ST" or "SA" are shown for approx. for 4 sec.

2. MTS MODE CHECK

Adjustment Preparation

- (1) Set the TV set so that a MTS broadcast (STEREO/SAP) can be received.
- (2) Set BALANCE to the center.

Adjustment Procedure

- (1) When "MTS MODE" is set to "MONO" mode, check that STEREO indication which has been ON are turned OFF and that monaural sound comes out from the right and left speakers.
- (2) When "MTS MODE" is set to "STEREO" mode, check that the STEREO indication which has been OFF are turned ON and that STEREO and SA sound can be received.

3. STEREO SEPARATION CHECK

Adjustment Preparation

- (1) Set the set so that a MTS broadcast (STEREO/SA) can be received.
- (2) Make surround "OFF".
- (3) Set MTS MODE to "STEREO."
- (4) Connect AUDIO OUT terminals L and R to an oscilloscope.

Adjustment Procedure

- (1) When stereo L only signal (or R only signal) is received, check that the output level ratio of Lch and Rch is 15dB or more.

(Example)

When L only is received (100% modulation)

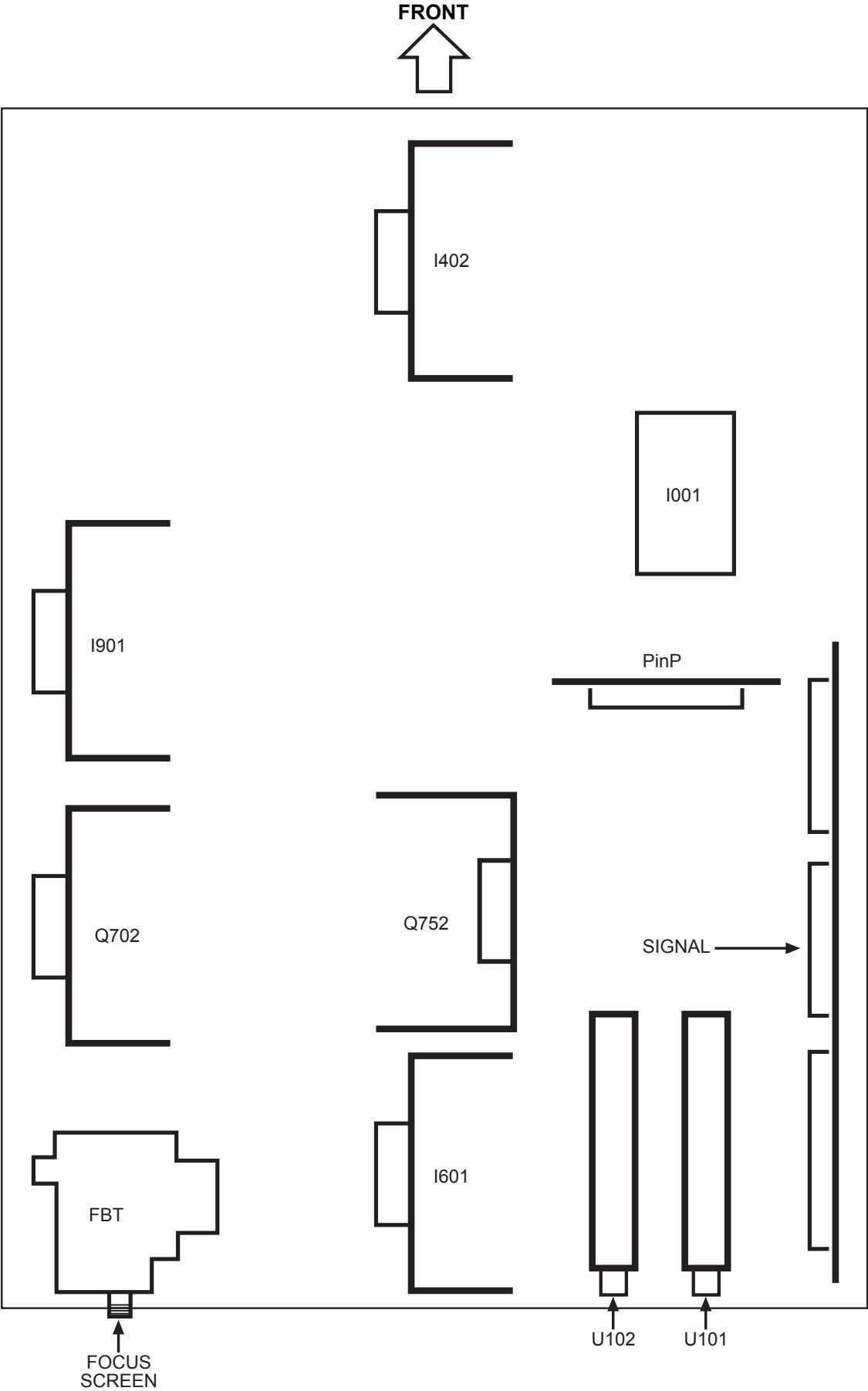
CH	Output Level
L	1.2 Vpp
R	0.21 Vpp or less

XIV. SETTING FOR DELIVERY

Setting is possible by Remo-con jig

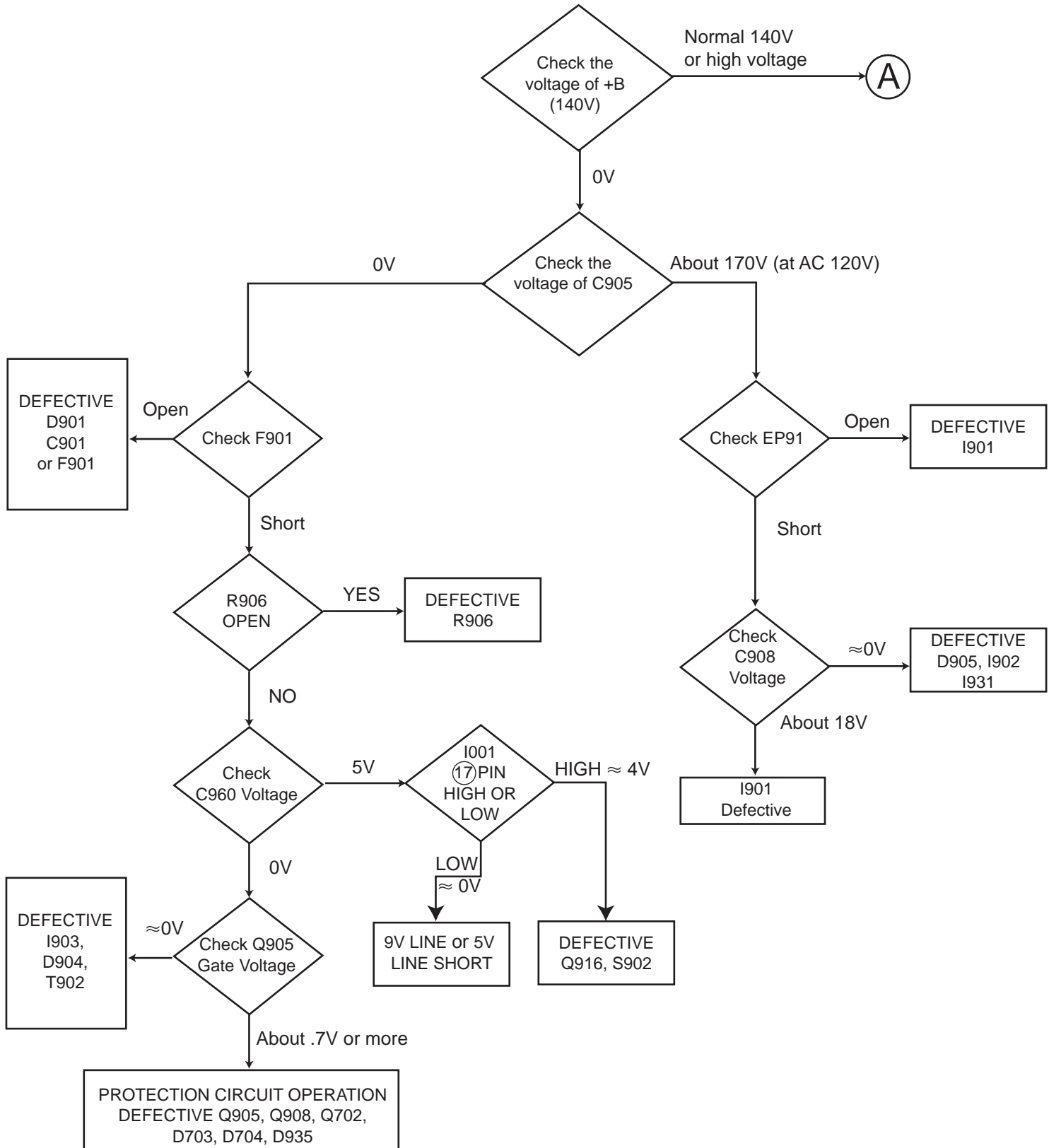
Name	Spec. by models	
	36UX01S/32UX01S	36GX01B/32GX01B
Signal source	Antenna (ANT A) (ANT B)	Antenna
Reception channel	03 CH	03CH
Sound Volume (Volume)	"10" ON-Screen Display	"10" ON-Screen Display
Input Select	TV Mode (ANT A)	TV Mode
Contrast	Max.	Max.
Color	Center value	Center value
Tint	Same as above	Same as above
Bright	Same as above	Same as above
Sharpness	Same as above	Same as above
Color temp.	Cool	Cool
Balance	Center value	Center value
Bass	Same as above	Same as above
Treble	Same as above	Same as above
MTS mode	Stereo	Stereo
Volume correction	No setting	No setting
Auto noise cancel	Off	Off
Internal Speaker	On	On
P in P	Off	--
P in P CH	TV (03) Off	--
Surround	Off	Off
Closed caption	Off	Off
Closed caption mode	C.C.	C.C.
Closed caption channel	1	1
P in P position	Bottom Right	Bottom Right
Menu language	English	English
Channel ID	No setting	No setting
Family favorites	No setting	No setting
Parental Control	No Install (KEY No.:0000)	No Install (KEY No.:0000)
Clock set	No setting	No setting
4 Event program	No setting	No setting
Channel memory	02~13CH	02~13CH
Video ID	No setting	No setting

XV. COMPONENTS POSITION LIST

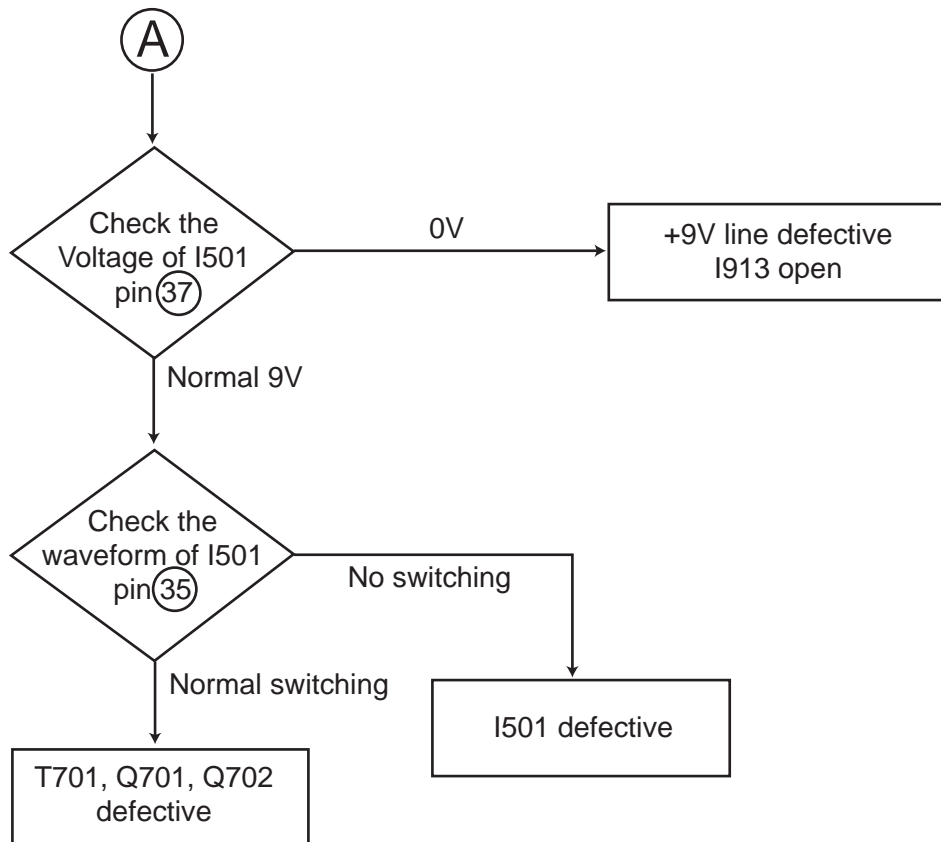


TROUBLE SHOOTING

① NO RASTER AND SOUND

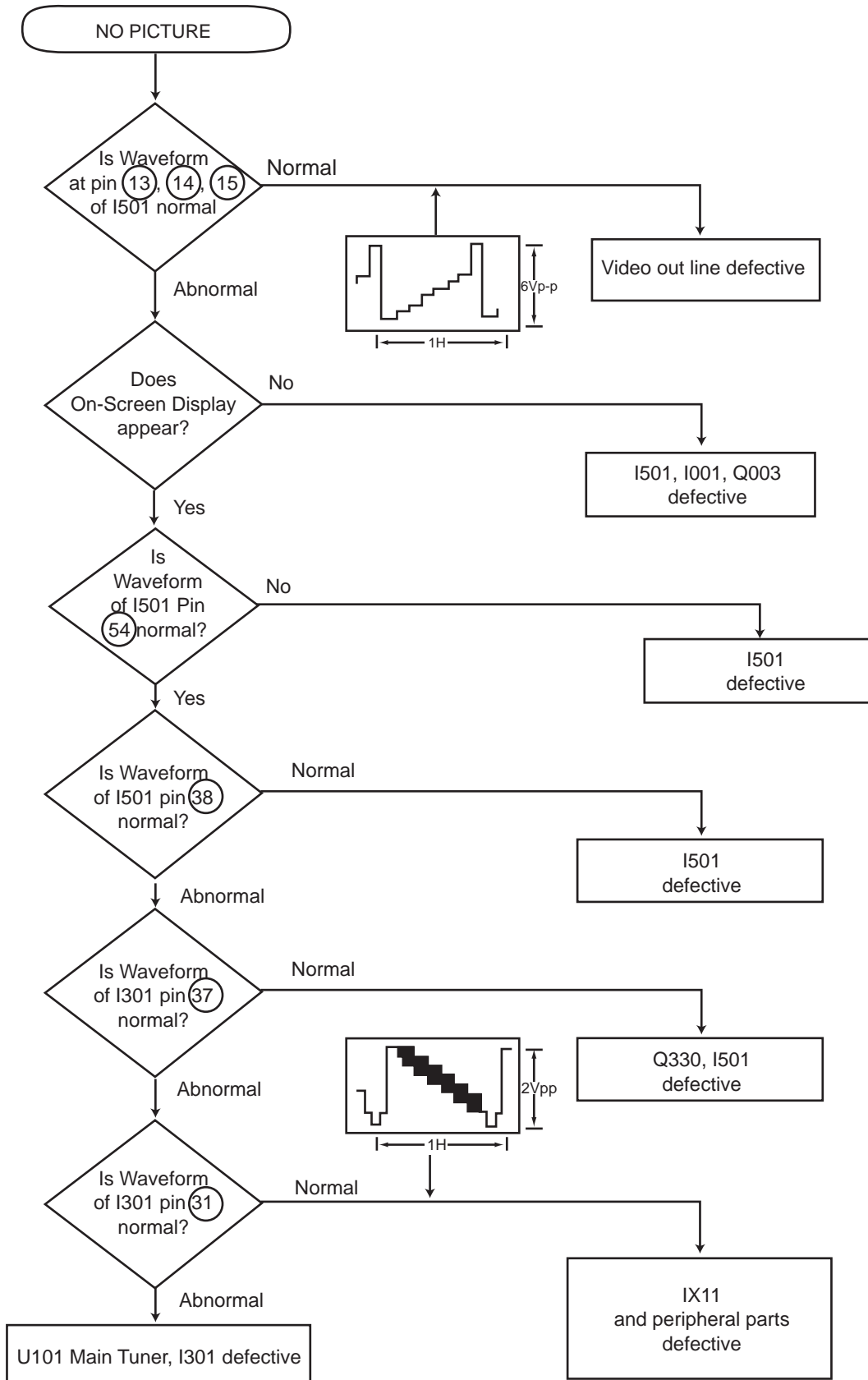


TROUBLE SHOOTING



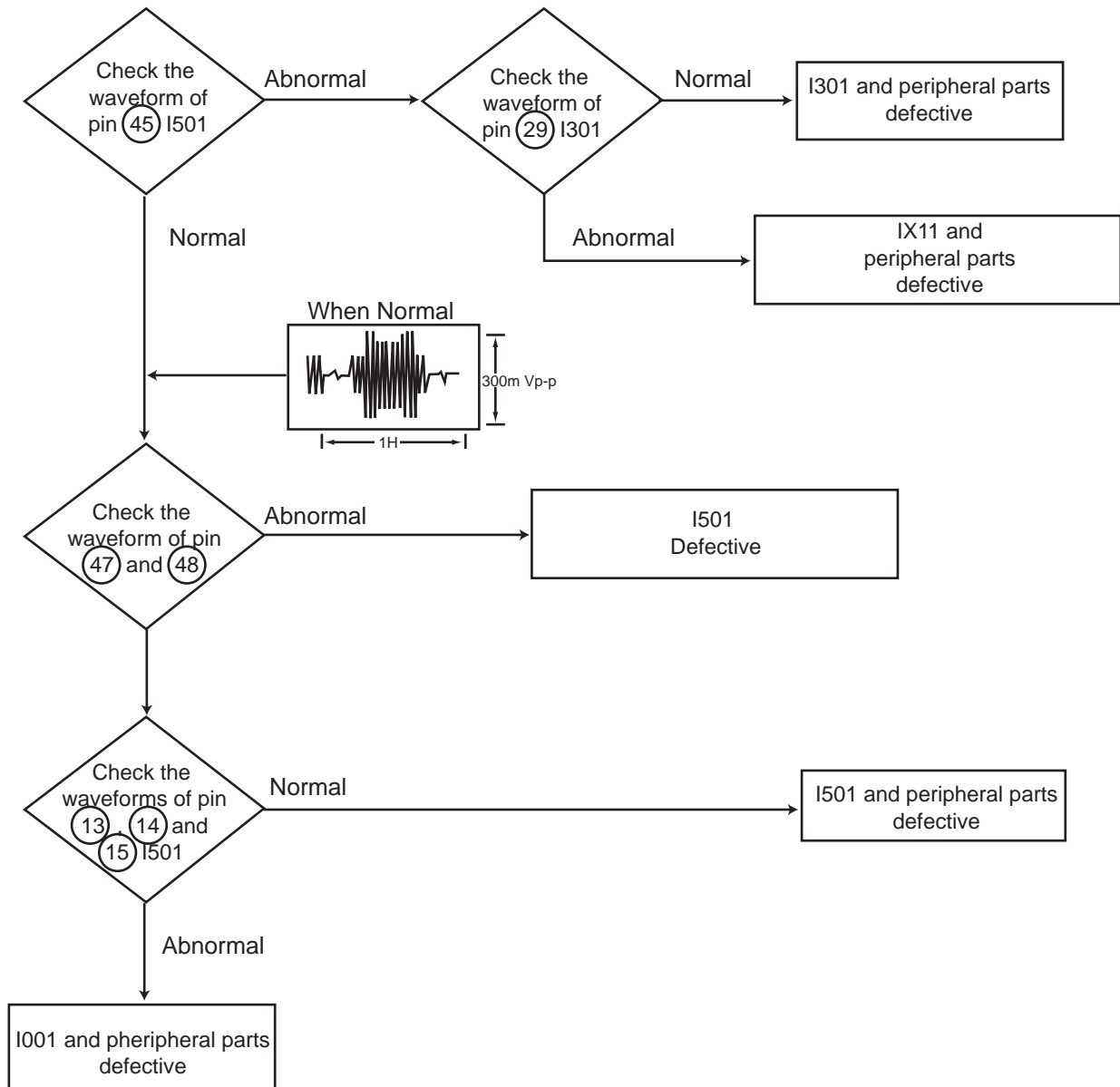
TROUBLE SHOOTING

② NO PICTURE



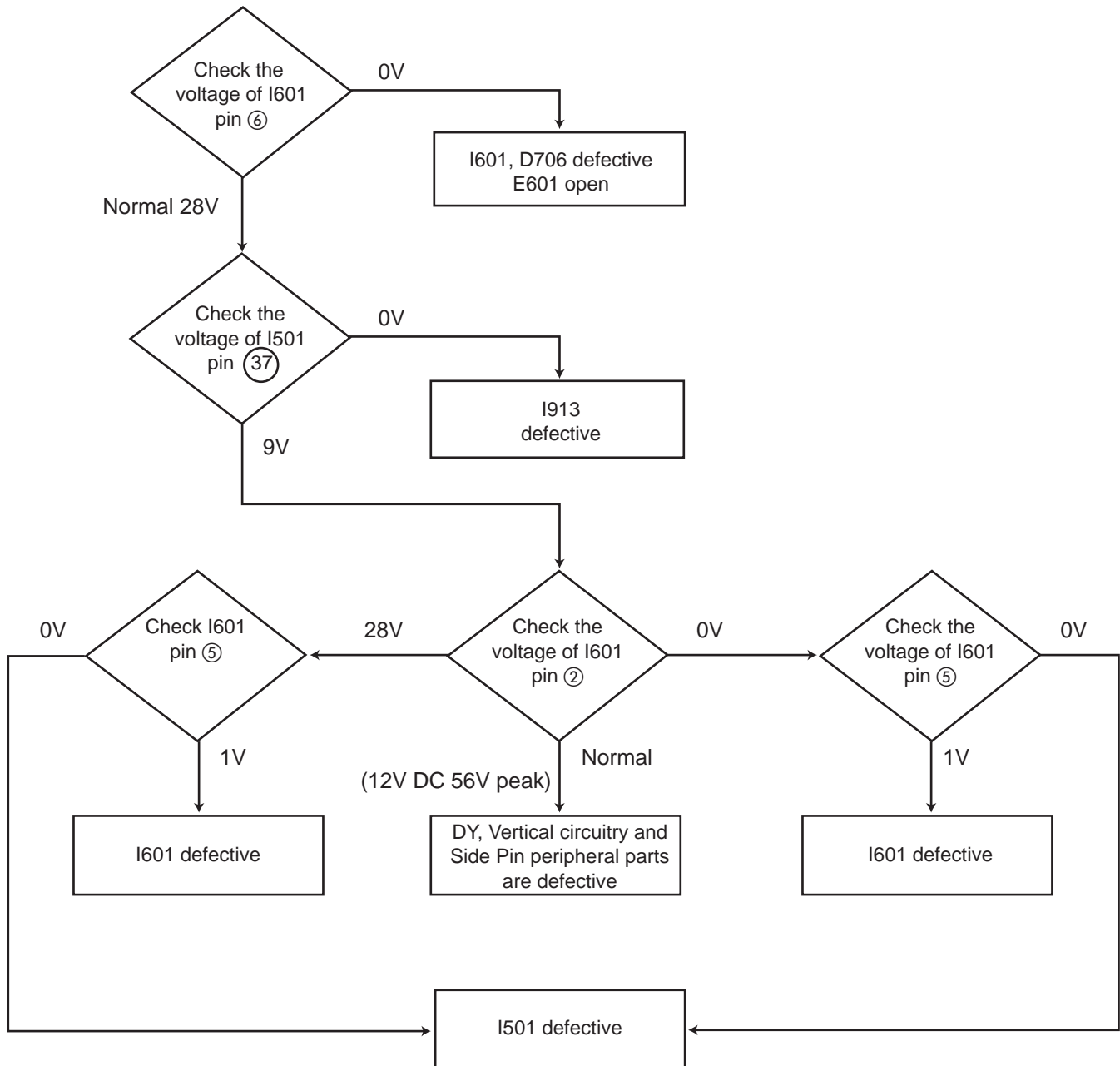
TROUBLE SHOOTING

③ NO COLOR



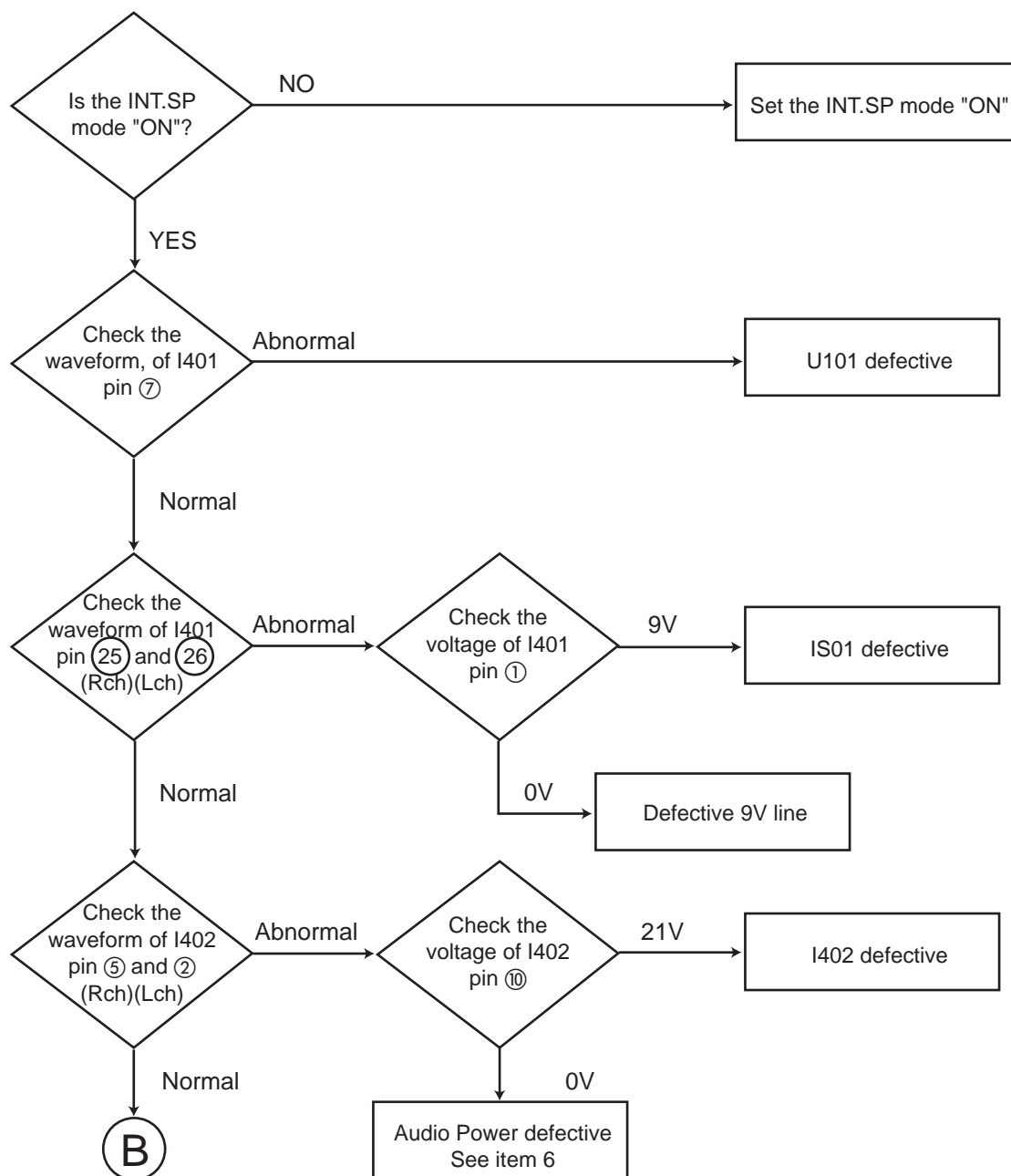
TROUBLE SHOOTING

④ NO VERTICAL DEFLECTION OR V. SIZE IS DISTORTED

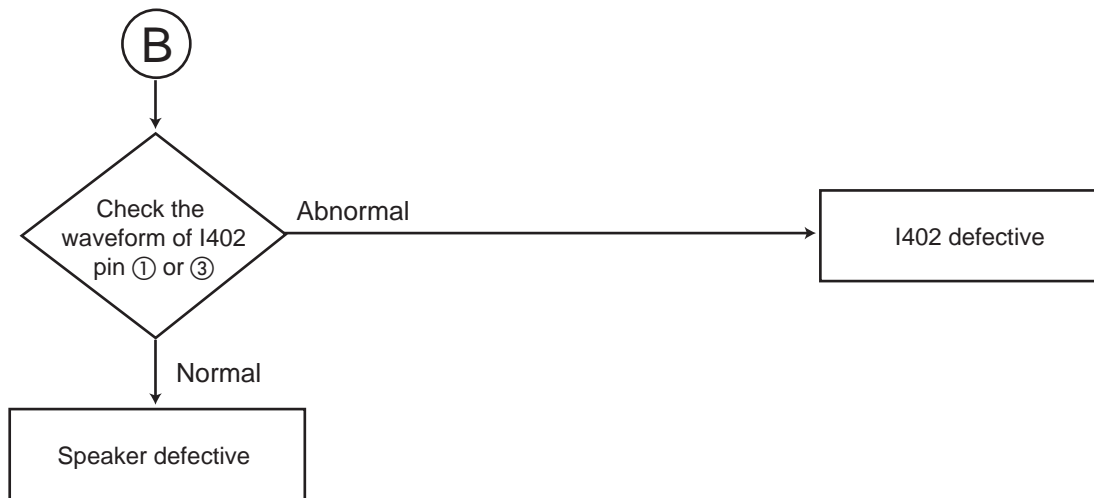


TROUBLE SHOOTING

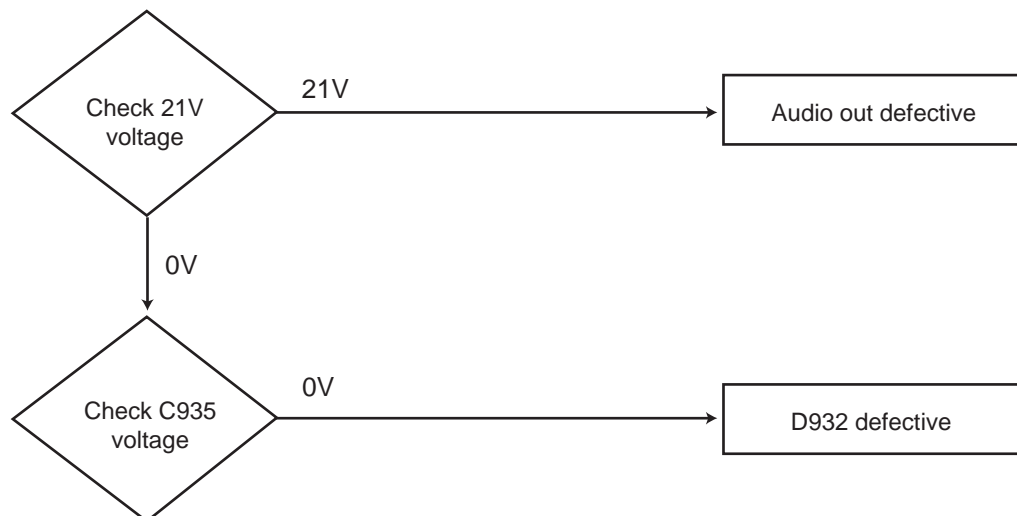
⑤ NO SOUND



TROUBLE SHOOTING

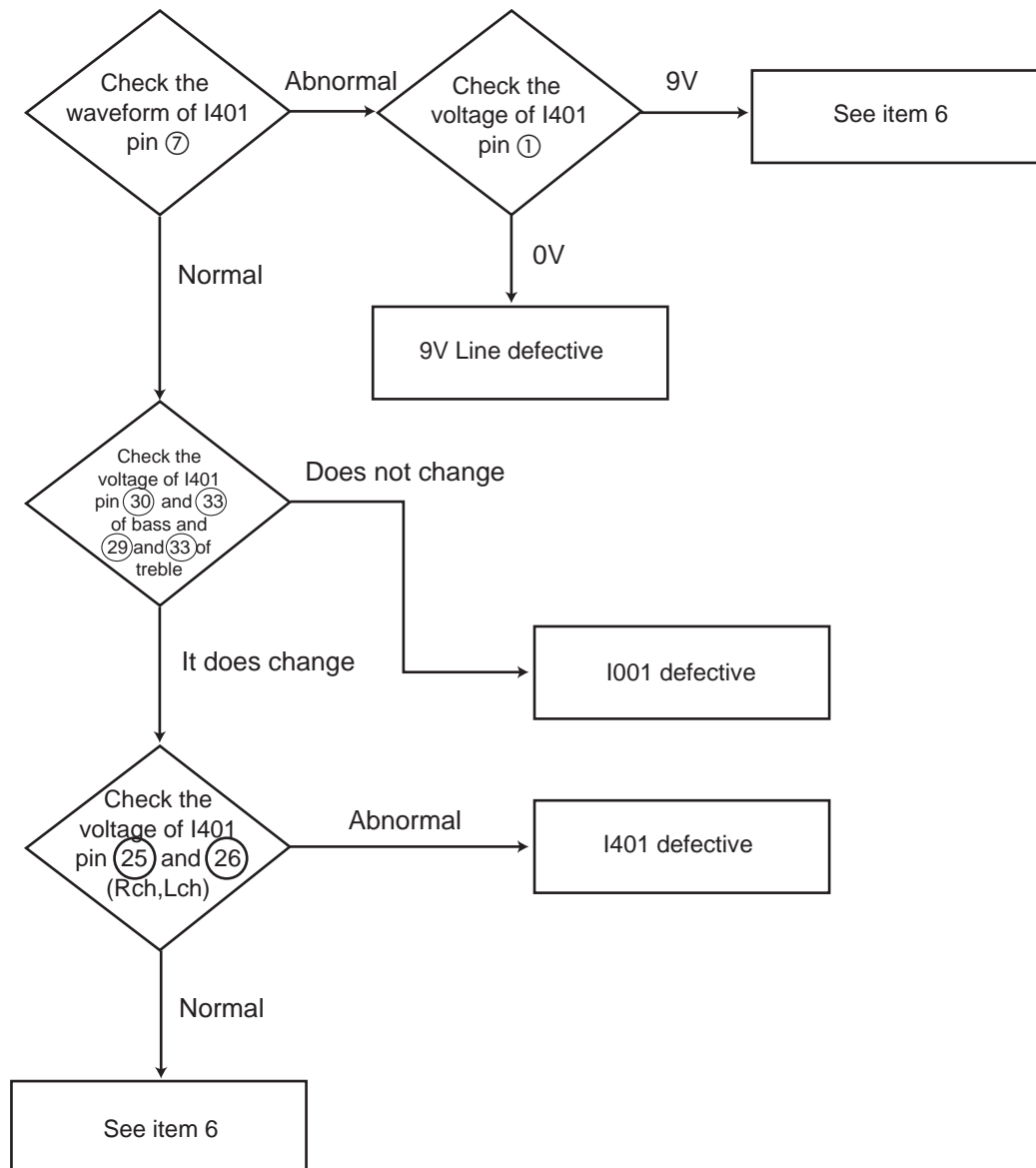


⑥ NO SOUND (NO AUDIO POWER)



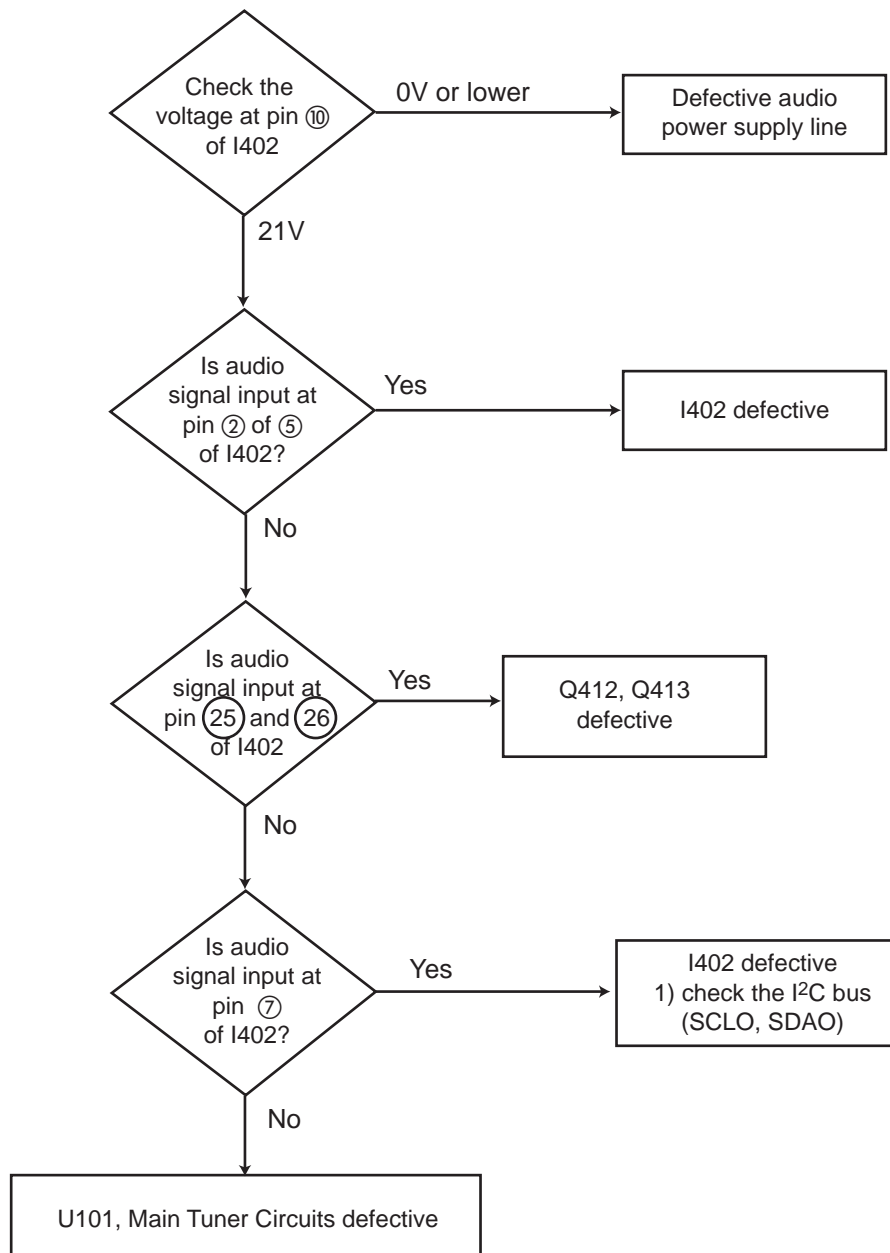
TROUBLE SHOOTING

⑦ NO SOUND OR NOT VARIABLE (BASS, TREBLE)



TROUBLE SHOOTING

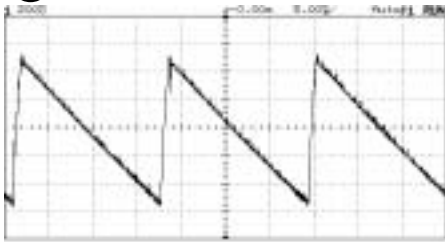
⑧ NO SOUND (WHEN SURROUND OFF)



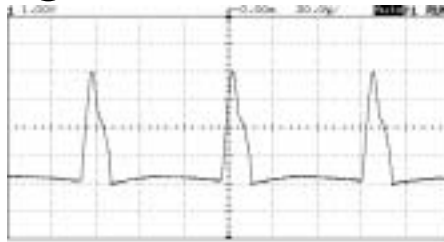
WAVEFORMS AT EACH SECTION

Numbers inside circle correspond to locations shown in the circuit diagram.

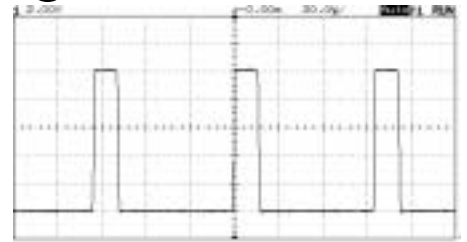
① C612



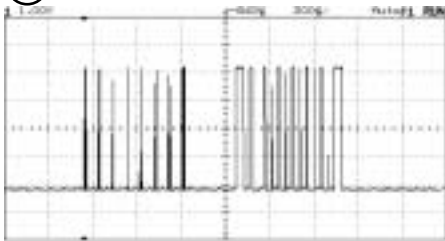
② D710 CATHODE



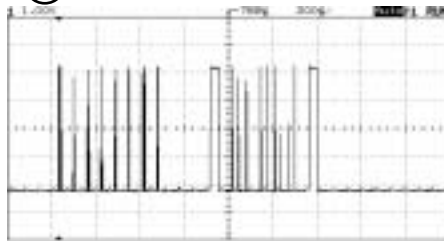
③ D755 CATHODE



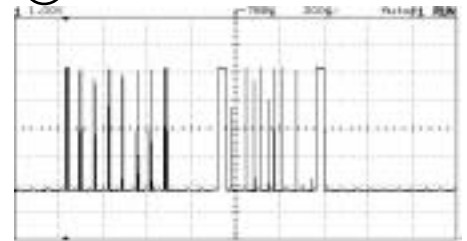
④ I001 Pin 22



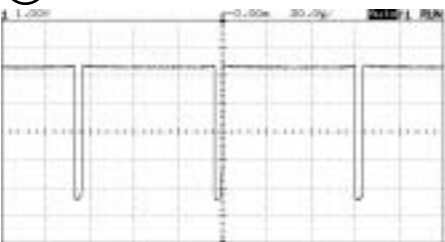
⑤ I001 Pin 23



⑥ I001 Pin 24



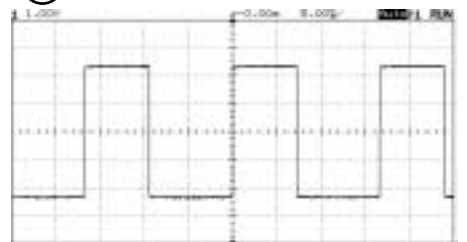
⑦ I001 Pin 26



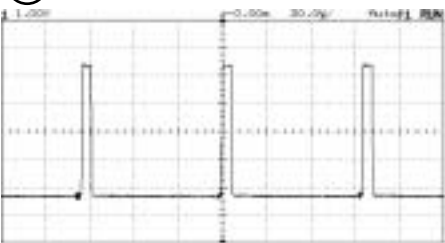
⑧ I001 Pin 27



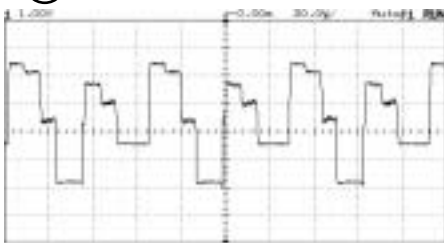
⑨ I001 Pin 34



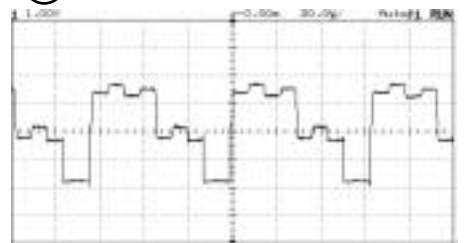
⑩ I001 Pin 36



⑪ I501 Pin 13



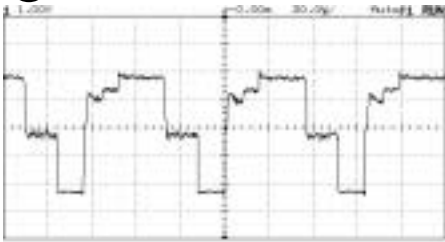
⑫ I501 Pin 14



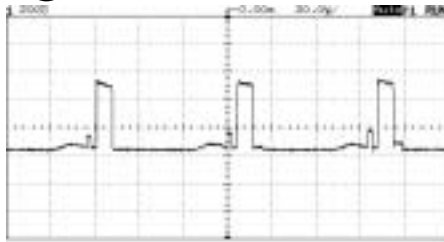
WAVEFORMS AT EACH SECTION

Numbers inside circle correspond to locations shown in the circuit diagram.

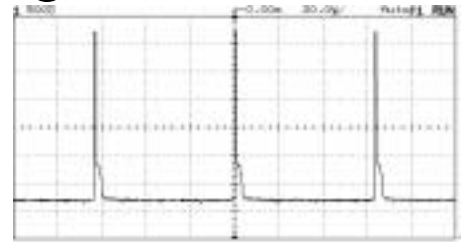
⑬ I501 Pin 15



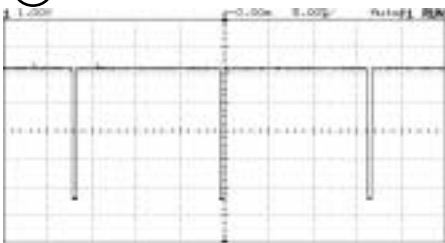
⑭ I501 Pin 3



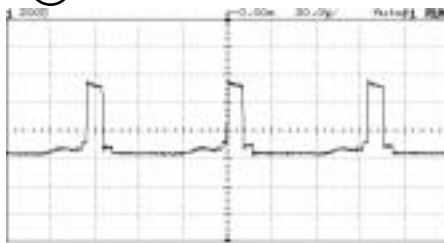
⑮ I501 Pin 32



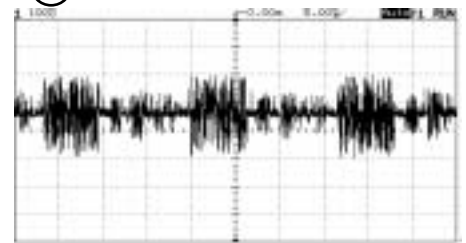
⑯ I501 Pin 33



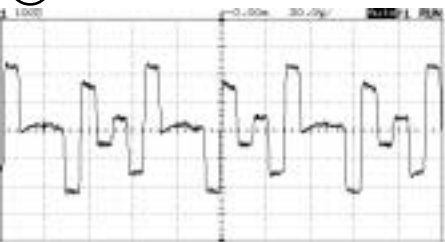
⑰ I501 Pin 4



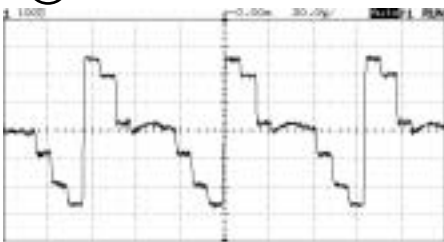
⑱ I501 Pin 45



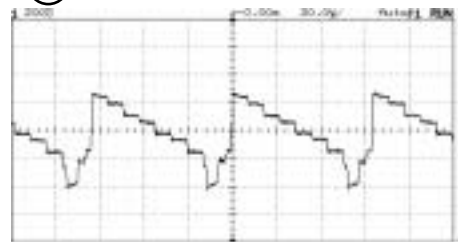
⑲ I501 Pin 47



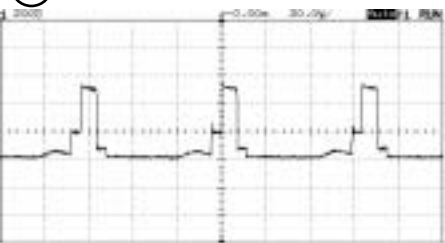
⑳ I501 Pin 48



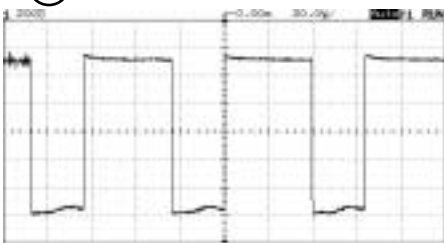
㉑ I501 Pin 54



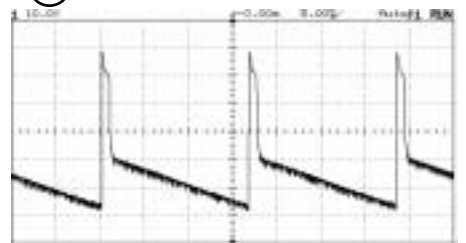
㉒ I501 Pin 5



㉓ I501 Pin 6



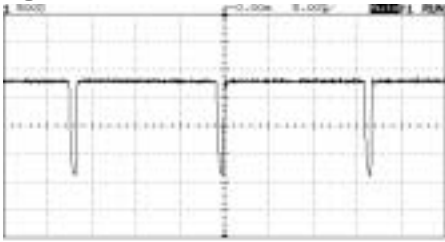
㉔ I601 Pin 2



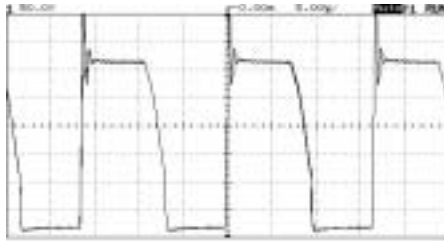
WAVEFORMS AT EACH SECTION

Numbers inside circle correspond to locations shown in the circuit diagram.

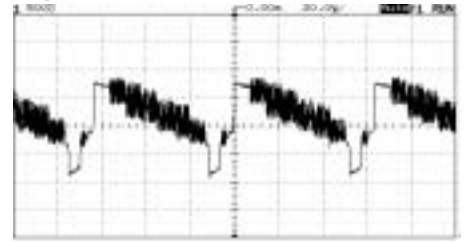
②⑤ I601 Pin 5



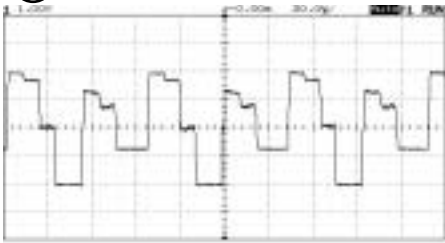
②⑥ I901 Pin 5



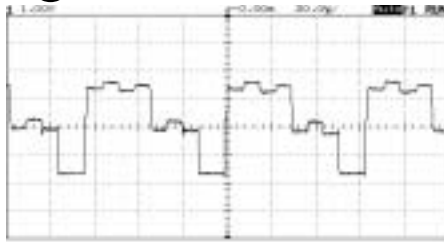
②⑦ PPM Pin 8



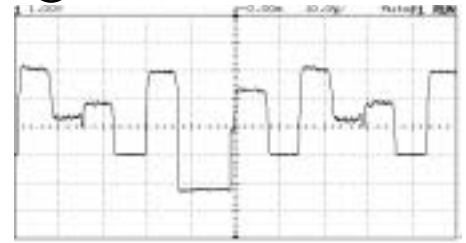
②⑧ PY1 Pin 1



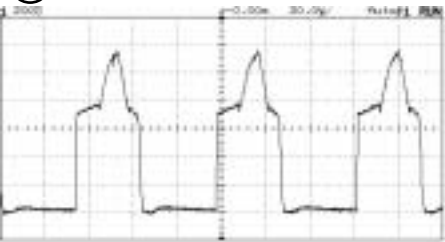
②⑨ PY1 Pin 2



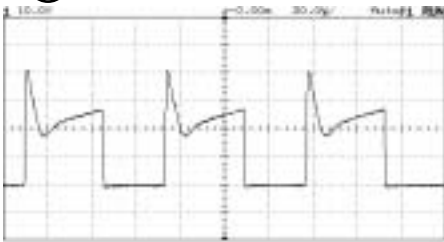
③⑩ PY1 Pin 3



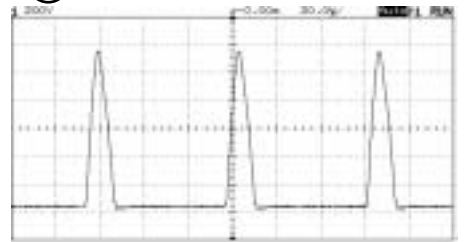
③① Q701 Base



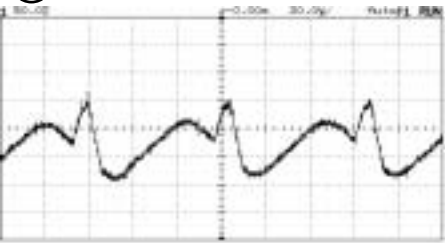
③② Q701 Collector



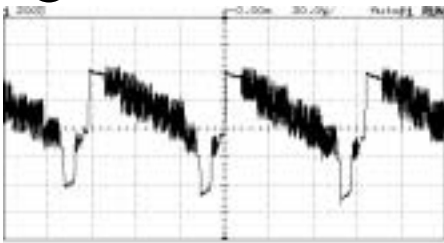
③③ Q702 Collector



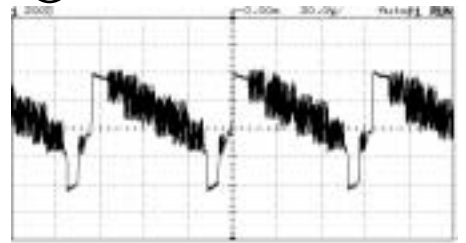
③④ Q752 Base



③⑤ U101 Pin 18



③⑥ U102 Pin 18



REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Capacitors:

AL: Aluminum Electrolytic
CD: Ceramic Disc
EL: Electrolytic
PF: Polyester Film
PP: Polypropylene
PL: Plastic
TA: Tantalum
PR: Paper
TM: Trimmer
MC: Mylar

Resistors:

CF: Carbon Film
CC: Carbon Composition
MF: Metal Oxide
VR: Variable Resistor
WW: Wire Wound
FR: Fuse Resistor
MG: Metal Grazed

Semiconductors:

















TR: Transistor
DI: Diode
ZD: Zener Diode
VA: Varistor
TH: Thermistor
IC: Integrated Circuit

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
		CAPACITORS	C109	0800351R	CAP.-ELECTRO. 470UF-M 6.3V
C001	0800351R	CAP.-ELECTRO. 470UF-M 6.3V	C110	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)
C002	AA00931R	CERAMIC CAPACITOR(1UF 10V)	C111	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C003	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C112	0800353R	CAP.-ELECTRO.470UF-M 16V
C004	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C113	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE (32/36UX01S)
C005	0228036R	CAP 2125 CHIP 18PF-J CH 50V TAPE	C114	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)
C006	0228042R	CAP 2125CHIP 33PFJCH 50V TAPE	C115	0800326R	CAP.-ELECTRO. 100UF-M 16V (32/36UX01S)
C007	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C118	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)
C008	AA00931R	CERAMIC CAPACITOR(1UF 10V)	C119	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C012	0228754R	CAP2125CHIP 100PFJSL 50V TAPE	C120	0228774R	CAP MINI-CHIP 680PF-J SL 50V TAPE (32/36UX01S)
C013	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C121	0228774R	CAP MINI-CHIP 680PF-J SL 50V TAPE (32/36UX01S)
C014	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C122	0228774R	CAP MINI-CHIP 680PF-J SL 50V TAPE (32/36UX01S)
C018	0893013R	CAP 2012CHIP 220000PFB 16V TAPE	C201	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V
C019	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	C203	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C020	0893037R	CAP 2125CHIP 3300PFB 50V TAPE	C204	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C021	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C205	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C023	0800315R	CAP.-ELECTRO. 47UF-M(SMG) 6.3V	C206	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C024	AN00624R	CAP.POLY 0.01UF 50V TAPE	C207	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C025	AN00624R	CAP.POLY 0.01UF 50V TAPE	C208	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C026	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C300	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C027	0893044R	CAP2125CHIP 10000PFB 50V TAPE	C301	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V
C032	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C302	0800326R	CAP.-ELECTRO. 100UF-M 16V
C033	0800334R	CAP.-ELECTRO. 220UF 10V(32GX01B)	C303	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C033	0880009R	CAP.-POLYESTER 0.01UF-K 50V	C304	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C034	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V	C305	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C101	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V(32/36UX01S)	C306	AA00931R	CERAMIC CAPACITOR(1UF 10V) (32/36UX01S)
C102	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)	C307	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C103	0800351R	CAP.-ELECTRO. 470UF-M 6.3V (32/36UX01S)	C308	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V
C104	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)	C309	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C105	0893044R	CAP2125CHIP 10000PFB 50V TAPE (32/36UX01S)	C310	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V
C106	0800353R	CAP.-ELECTRO.470UF-M 16V (32/36UX01S)	C311	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C107	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C312	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C108	0893044R	CAP2125CHIP 10000PFB 50V TAPE	C313	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V










PRODUCT SERVICE NOTE: Components marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C314	AA00931R	CERAMIC CAPACITOR(1UF 10V)	C453	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C315	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C454	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C317	AA00931R	CERAMIC CAPACITOR(1UF 10V)	C455	AA00931R	CERAMIC CAPACITOR(1UF 10V)
C318	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C501	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C319	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C502	0800326R	CAP.-ELECTRO. 100UF-M 16V
C320	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C503	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C321	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C504	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V
C322	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C505	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C326	0228050R	CAP 2125 CHIP 68PFJCH 50V TAPE	C506	0800279R	CAP.-ELECTRO. 1.0UF-M(SMG) 50V
C328	0228050R	CAP 2125 CHIP 68PFJCH 50V TAPE	C507	0893049R	CAP2125CHIP 27000PFB 50V TAPE
C370	0228746R	CAP 2125 CHIP 47PFJSL 50V TAPE	C508	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C381	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C509	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C382	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C510	0800273R	CAP.-ELECTRO 0.22UF-M 50V
C401	0800326R	CAP.-ELECTRO. 100UF-M 16V	C511	0893039R	CAP 2125CHIP 4700PFB 50V TAPE
C402	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V	C512	0228032R	CAP 2125CHIP 12PFJCH 50V TAPE
C403	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C513	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C404	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C514	0800351R	CAP.-ELECTRO. 470UF-M 6.3V
C405	0800286R	CAP.-ELECTRO. 4.7UF-M(SMG) 25V	C515	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C406	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C516	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C407	0893053R	CAP2125CHIP 47000PFB 50V TAPE	C517	0800279R	CAP.-ELECTRO. 1.0UF-M(SMG) 50V
C408	0800277R	CAP.-ELECTRO. 0.47UF-M 50V	C519	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE (32/36UX01S)
C409	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C520	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE (32/36UX01S)
C410	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C521	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE (32/36UX01S)
C411	0292712F	CAP.-TANTALUM 3.3UF-K 16V	C522	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C412	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C523	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C413	0292714F	CAP.-TANTALUM 10UF-K 16V	C524	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C414	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C525	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C415	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C526	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C416	0800286R	CAP.-ELECTRO. 4.7UF-M(SMG) 25V	C527	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C417	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C528	0800326R	CAP.-ELECTRO. 100UF-M 16V
C420	0893048R	CAP2125CHIP 22000PFB 50V TAPE	C529	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C421	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C530	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C422	0893035R	CAP2125CHIP 2200PFB 50V TAPE	C531	0893044R	CAP2125CHIP 10000PFB 50V TAPE
C423	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C532	0893099R	CERAMIC CAPACITOR(474PF 16V)
C424	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V	C533	0893099R	CERAMIC CAPACITOR(474PF 16V)
C425	0893035R	CAP2125CHIP 2200PFB 50V TAPE	C534	0880207R	CAP.-POLYESTER 1.0UF-J 50V
C426	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C535	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C427	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C537	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C428	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C538	0893025R	CAP 2125CHIP 68000PFB 25V TAPE
C429	0800003R	CAP.-ELECTRO. 1.0UF-M 50V	C539	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C430	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C540	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C431	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C541	0893092R	CAP2125CHIP 56000PFB 50V TAPE
C432	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C542	0893035R	CAP2125CHIP 2200PFB 50V TAPE
C433	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C543	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C434	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C544	0228764R	CAP. MINI-CHIP 270PF-J SL 50V TAPE (32GX01B/23UX01S)
C435	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C548	0228760R	CAP 2125 CHIP 180PFJSL 50V TAPE
C436	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C604	0800338R	CAP.ELECTRO.220UF-M 50V(SMG)
C437	0800327R	CAP.-ELECTRO. 100UF-M 25V	C605	0800328R	CAP. ELECTRO. 100UF-M 35V
C438	0800362N	CAP.-ELECTRO. 1000UF-M 25V	C606	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C439	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C609	0880057R	CAP.-POLYESTER 0.1UF-KEB 50V
C440	0800362N	CAP.-ELECTRO. 1000UF-M 25V	C610	0800282R	CAP.-ELECTRO. 2.2UF-M(SMG) 50V (32UX01S/32GX01B)
C441	0800362N	CAP.-ELECTRO. 1000UF-M 25V	C610	0800284R	CAP.-ELECTRO. 3.3UF-M(SMG) 50V (36UX01S/36GX01B)
C446	0800353R	CAP.-ELECTRO.470UF-M 16V	C611	0284821F	CAP. ELECTRO 3300UF/25V SMG
C450	0800361N	CAP.-ELECTRO 1000UF 16V	C612	AN00619R	CAP.POLYESTER 0.0047UF 50V TAPE
C451	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C613	0800308R	CAP.-ELECTRO. 33UF-M(SMG) 16V
C452	0893031R	CAP 2125CHIP 1000PFB 50V TAPE	C614	0880016R	CAP.-POLYESTER FILM 0.1UF 50V

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C620	0880009R	CAP.-POLYESTER 0.01UF-K 50V	C911	AJ00559	CAPACITOT CERAMIC 2200PF2KV
C701	AL00031R	CAP.-ELECTRO. 33UF-M 250V	C913	0229005R	CAP 2125 CHIP 470PF-K B 50V TAPE
 C702	0800304R	CAP.-ELECTRO. 22UF-M(SMG) 63V	C915	0893031R	CAP 2125CHIP 1000PFBK 50V TAPE
 C703	0800279R	CAP.-ELECTRO. 1.0UF-M(SMG) 50V	 C930	AJ00581F	CAP.CERAMIC 1000P 250V
C705	0800363N	CAP.-ELECTRO. 1000UF 35V	C935	0800368N	CAP.-ELECTRO. 2200UF-M 25V
C706	0880194R	CAP.-POLYESTER 0.1UF-J 50V	C936	0253862	CAP.-ELECTRO. 220UF-M 160V (36UX01S/36GX01B)
C707	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	C936	0254823G	CAP.-ELECTRO.100UF-M 160V (32UX01S/32GX01B)
C708	0244501R	CAP.-CERAMIC 1000PF-K 500V	C938	0800367N	CAP.-ELECTRO. 2200UF-M 16V
C709	AN01169F	CAP 0.22UF 250V METALLIZ POLY (32UX01S/32GX01B)	C940	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
 C709	AN01174F	CAP 0.33UF 250V METALLIZ POLY (36UX01S/36GX01B)	C945	0800326R	CAP.-ELECTRO. 100UF-M 16V
 C710	AN01662F	15000PF 1500V METALLIZ POLYPROPYLENE FILM CAP	C946	0800352R	CAP.-ELECTRO.470UF 10V
 C711	AJ00129F	CAPACITOR CERAMIC 470P DC2K-R (32UX01S/32GX01B)	C956	0244202F	CAP.-CERAMIC 470PF-KF 2KV
 C711	AJ00132F	CAPACITOR CERAMIC 680P DC2K-R (36UX01S/36GX01B)	C959	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V
 C712	AN01172F	CAPACITOR 0.27UF 250V METALLIZ POLYPROPYLENE	C960	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V
 C713	0299995F	CAP.POLY.FILM 0.027UF 630V	C964	0800333R	CAP.-ELECTRO.220UF-M 6.3V (32/36GX01B)
C714	0263001	CAP.-ELECTRO.3.3UF-M 100V	C964	0800351R	CAP.-ELECTRO. 470UF-M 6.3V (32/36UX01S)
C715	AN01651F	5600PF 1500V METAL POLY FILM CAP (36UX01S/36GX01B)	C965	0893053R	CAP2125CHIP 47000PFBK 50V TAPE
C715	AN01652F	6200PF 1500V METAL POLYFILM CAP (32UX01S/32GX01B)	C993	0243509R	CAP.-CERAMIC 470PF-K 500V TAPE (36GX01B)
C716	0254823G	CAP.-ELECTRO.100UF-M 160V	CL01	0880194R	CAP.-POLYESTER 0.1UF-J 50V (32/36UX01S)
C717	0880201R	CAP.-POLYESTER 0.33UF-J 50V	CL02	0800329R	CAP.-ELECTRO. 100UF-M(SMG) 50V (32/36UX01S)
C718	0244139R	CAPACITOR-CERAMIC 1000PF-K B50V	CL04	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V (32/36UX01S)
C719	AN00624R	CAP.POLY 0.01UF 50V TAPE	CL05	0893044R	CAP2125CHIP 10000PFBK 50V TAPE (32/36UX01S)
C721	0243508R	CAPACITOR-CERAMIC 390PF-K 500V	CL06	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE (32/36UX01S)
C722	0243506R	CAP.-CERAMIC 270PF-K 500V	CL07	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V (32/36UX01S)
C723	0244501R	CAP.-CERAMIC 1000PF-K 500V	CL08	0228050R	CAP 2125 CHIP 68PFJCH 50V TAPE (32/36UX01S)
C724	0243509R	CAPACITOR-CERAMIC 470PF-K 500V TAPE	CL09	AJ00001R	CAP.CERAMIC 0.01UF-Z 500V (32/36UX01S)
C851	0800326R	CAP.-ELECTRO. 100UF-M 16V	CL10	AJ00001R	CAP.CERAMIC 0.01UF-Z 500V (32/36UX01S)
C854	0890067R	CAP.-CERAMIC 33PF-J 50V	CL11	AN00619R	CAP.POLYESTER 0.0047UF 50V TAPE (32/36UX01S)
C856	0890067R	CAP.-CERAMIC 33PF-J 50V	CL12	0800321R	CAP.-ELECTRO. 47UF-M 50V (32/36UX01S)
C859	0255524F	CAP.-ELECTRO. 4.7MF-M 250V(KME)	CL13	0800321R	CAP.-ELECTRO. 47UF-M 50V (32/36UX01S)
C860	AJ00559	CAPACITOT CERAMIC 2200PF2KV	CL14	AL00028R	ALUMINIUM ELECTRO CAP(100UF250V) (32/36UX01S)
C866	0880009R	CAP.-POLYESTER 0.01UF-K 50V	CL15	0246836R	CAP.CERAMIC 18PF 500V TAPE (32/36UX01S)
C874	AN00611R	CAP.POLYSTYLENE 0.001UF 50V TAPE	CL16	0246836R	CAP.CERAMIC 18PF 500V TAPE (32/36UX01S)
C875	AN00611R	CAP.POLYSTYLENE 0.001UF 50V TAPE	CL17	AL00032R	CAP.ALMI 47UF250V (32/36UX01S)
C876	AN00611R	CAP.POLYSTYLENE 0.001UF 50V TAPE	CL18	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V (32/36UX01S)
C877	0890074R	CAP.-CERAMIC 100PF-J 50V	CX10	0800326R	CAP.-ELECTRO. 100UF-M 16V
C878	0890074R	CAP.-CERAMIC 100PF-J 50V	CX11	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
C879	0890074R	CAP.-CERAMIC 100PF-J 50V	CX14	0800326R	CAP.-ELECTRO. 100UF-M 16V
C880	0890084R	CAP.-CERAMIC 560PF-K 50V	CX15	0800326R	CAP.-ELECTRO. 100UF-M 16V
C881	0890081R	CAP.-CERAMIC 330PF 50V	CX16	0800326R	CAP.-ELECTRO. 100UF-M 16V
C882	0890083R	CAP.-CERAMIC 470PF-K 50V	CX18	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C883	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V	CX19	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C884	AN00624R	CAP.POLY 0.01UF 50V TAPE	CX20	0228736R	CAP2125CHIP 18PFJSL 50V TAPE
C890	AN00615R	CAP.POLYESTER 0.0022UF 50V TAPE	CX21	0228738R	CAP2125CHIP 22PFJSL 50V TAPE
 C901	AN01443S	ACROSS CAPA 0.1UF 250V RE104	CX22	0228710R	CAP 2125 CHIP 10PFCSL 50V TAPE
 C902	AN01443S	ACROSS CAPA 0.1UF 250V RE104	CX39	0800326R	CAP.-ELECTRO. 100UF-M 16V
 C903	0248593F	CAP.-CERAMIC 4700PF-Z 250V	CX40	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
 C904	0248593F	CAP.-CERAMIC 4700PF-Z 250V	CX41	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
C905	AL01735	CAP.ALUMI.200V 470UF KMH(M) (32GX01B)	CX42	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
C905	AL01736	CAP.ALUMI.200V 560UF KMH(M) (32UX01S/36GX01B)	CX43	0800286R	CAP.-ELECTRO. 4.7UF-M(SMG) 25V
C905	AL01737	CAP.ALUMI.200V 680UF KMH(M) (36UX01S)	CX44	0893053R	CAP2125CHIP 47000PFBK 50V TAPE
C906	0800362N	CAP.-ELECTRO. 1000UF-M 25V	CX45	0893053R	CAP2125CHIP 47000PFBK 50V TAPE
 C907	AJ00583F	CAPACITOT CERAMIC 2200P 250V	CX46	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
C908	0800327R	CAP.-ELECTRO. 100UF-M 25V	CX47	0228760R	CAP 2125 CHIP 180PFJSL 50V TAPE
 C909	AJ00583F	CAPACITOT CERAMIC 2200P 250V	CX48	0893044R	CAP2125CHIP 10000PFBK 50V TAPE
 C910	AJ00583F	CAPACITOT CERAMIC 2200P 250V	CX49	0893044R	CAP2125CHIP 10000PFBK 50V TAPE



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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CX50	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D604	CH02001M	DIODE 1SR139-400
CX51	0800326R	CAP.-ELECTRO. 100UF-M 16V	D605	CH02021M	DIODE 1SS133 T-72
CX52	0800334R	CAP.-ELECTRO. 220UF 10V	D607	2339981M	ZENER HZS36-1 TA
CX53	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D608	2339981M	ZENER HZS36-1 TA
CX54	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D701	CH00031M	DIODE AU02V1(280V)
CX55	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	 D702	CH02011M	DIODE 1SR153-400
CX56	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	 D703	2339953M	ZENER HZS27-3 TA
CX57	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	 D704	2339953M	ZENER HZS27-3 TA
CX58	0800326R	CAP.-ELECTRO. 100UF-M 16V	D705	CH02021M	DIODE 1SS133 T-72
CX71	0890121R	CAP.-CERAMIC 33PF-J CH 50V	 D706	CH00031M	DIODE AU02V1(280V)
CX72	0890121R	CAP.-CERAMIC 33PF-J CH 50V	D707	CH02001M	DIODE 1SR139-400
		DIODES	D708	CH02001M	DIODE 1SR139-400
D001	CH02021M	DIODE 1SS133 T-72	 D709	2348511	DIODE RS3FS (36UX01S/36GX01B)
D002	CH02021M	DIODE 1SS133 T-72	 D710	2336612M	DIODE RU3AM TA
D003	2339867M	ZENER HZS-9-C1 TAPE (SI.200MA)	D711	CH02021M	DIODE 1SS133 T-72
D005	CH02021M	DIODE 1SS133 T-72	 D712	2348511	DIODE RS3FS
D008	CH02021M	DIODE 1SS133 T-72	D755	2339868M	ZENER HZS9C2 TAPE
D101	2335991M	ZENER HZ-T33 (02 TP)	D804	CH02021M	DIODE 1SS133 T-72
D102	2339867M	ZENER HZS-9-C1 TAPE (SI.200MA)	D805	CH02021M	DIODE 1SS133 T-72
D201	2339867M	ZENER HZS-9-C1 TAPE (SI.200MA)	D806	CH02021M	DIODE 1SS133 T-72
D204	2339867M	ZENER HZS-9-C1 TAPE (SI.200MA)	D807	CH02021M	DIODE 1SS133 T-72
D205	2339867M	ZENER HZS-9-C1 TAPE (SI.200MA)	D808	CH02021M	DIODE 1SS133 T-72
D302	2339868M	ZENER HZS9C2 TAPE	D809	CH02021M	DIODE 1SS133 T-72
D303	2339868M	ZENER HZS9C2 TAPE	D810	CH02021M	DIODE 1SS133 T-72
D304	2339868M	ZENER HZS9C2 TAPE	D820	2339601M	ZENER HZS-2 TAPE (ALL) SI 400MW 2.0V
D370	CH02021M	DIODE 1SS133 T-72	D821	2339601M	ZENER HZS-2 TAPE (ALL) SI 400MW 2.0V
D401	CH02021M	DIODE 1SS133 T-72	D822	2339601M	ZENER HZS-2 TAPE (ALL) SI 400MW 2.0V
D402	2339812M	ZENER HZS3A2 TA (SI.200MA)	D823	CH02021M	DIODE 1SS133 T-72
D403	CH02021M	DIODE 1SS133 T-72	D825	CH02021M	DIODE 1SS133 T-72
D404	CH02021M	DIODE 1SS133 T-72	D826	CH02021M	DIODE 1SS133 T-72
D405	CH02021M	DIODE 1SS133 T-72	D831	2339868M	ZENER HZS9C2 TAPE
D406	CH02021M	DIODE 1SS133 T-72	D832	2339868M	ZENER HZS9C2 TAPE
D419	CH02021M	DIODE 1SS133 T-72	D833	2339868M	ZENER HZS9C2 TAPE
D420	CH02021M	DIODE 1SS133 T-72	 D901	2342061	DIODE D3SB(A)60.
D500	2339868M	ZENER HZS9C2 TAPE	 D901	2342062	DIODE D3SBA60-4103 (32GX01B)
D501	CH02021M	DIODE 1SS133 T-72	D902	CH02011M	DIODE 1SR153-400
D502	CH02021M	DIODE 1SS133 T-72 (32/36UX01S)	D903	2339981M	ZENER HZS36-1 TA
D505	2339868M	ZENER HZS9C2 TAPE	D904	2348393	DIODE S1NB20(200V)
D506	2339868M	ZENER HZS9C2 TAPE	D905	CH02011M	DIODE 1SR153-400
D507	2339868M	ZENER HZS9C2 TAPE	D906	CH02011M	DIODE 1SR153-400
D508	2339868M	ZENER HZS9C2 TAPE (32/36UX01S)	D909	CH02011M	DIODE 1SR153-400
D509	CH02021M	DIODE 1SS133 T-72	D930	CH02001M	DIODE 1SR139-400
D511	CH02021M	DIODE 1SS133 T-72 (32GX01B/32UX01S)	D931	CH02001M	DIODE 1SR139-400
D512	CH02021M	DIODE 1SS133 T-72 (32GX01B/32UX01S)	D932	2336615	DIODE RU3YX (LF-A1)
D513	CH02021M	DIODE 1SS133 T-72 (32GX01B/32UX01S)	D934	2349861	DIODE FMU-G16S
D514	CH02021M	DIODE 1SS133 T-72 (32GX01B/32UX01S)	D935	2339191M	ZENER HZS20-1L TAPE
D515	CH02021M	DIODE 1SS133 T-72 (32GX01B/32UX01S)	D936	2338944	DIODE FML-G12S (F) (200V) SI 0.04USEC (32/36UX01S)
D523	CH02021M	DIODE 1SS133 T-72	D936	2345231	DIODE EK16 (32/36GX01B)
D524	CH02021M	DIODE 1SS133 T-72	D938	CH02021M	DIODE 1SS133 T-72
D525	CH02021M	DIODE 1SS133 T-72	D939	CH02021M	DIODE 1SS133 T-72
D556	2339849M	ZENER HZS6C3 TA	D952	CH02021M	DIODE 1SS133 T-72
D557	2339851M	ZENER HZS7A1 TAPE (SI.200MA)	D953	CH02021M	DIODE 1SS133 T-72
D558	CH02021M	DIODE 1SS133 T-72	DL02	CH02021M	DIODE 1SS133 T-72 (32/36UX01S)
D559	2339849M	ZENER HZS6C3 TA	DL03	CH02021M	DIODE 1SS133 T-72 (32/36UX01S)
D601	2339868M	ZENER HZS9C2 TAPE (32UX01S/32GX01B)	DL04	2331913M	DIODE 1SS83 (TAPE) (32/36UX01S)
			DL05	2331913M	DIODE 1SS83 (TAPE) (32/36UX01S)

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
DL06	2331913M	DIODE 1SS83 (TAPE)	L856	2122255M	COIL-AXIAL 150UH-K
DL07	2331913M	DIODE 1SS83 (TAPE)	L857	2123468M	FERRITE BEADS CORE LEAD 0.8MH
DL08	2339889M	ZENER HZS12 (C3) 0.005A	L858	2123468M	FERRITE BEADS CORE LEAD 0.8MH
			L859	2123468M	FERRITE BEADS CORE LEAD 0.8MH
			L860	2123468M	FERRITE BEADS CORE LEAD 0.8MH
		INTEGRATED CIRCUITS	L861	2123468M	FERRITE BEADS CORE LEAD 0.8MH
I001	CP07041U	IC TMP88CS38N/F MAIN MICRO	L862	2123468M	FERRITE BEADS CORE LEAD 0.8MH
I002	CP05011R	RESET IC (PST994D-T)	L863	2123468M	FERRITE BEADS CORE LEAD 0.8MH
I003	CP05271U	IC M24C08-BN6 EEPROM	L880	2771893	FERITE BEADS CORE (005)
I301	CP07031U	IC MM1313AD A/V SWITCH	L881	2771893	FERITE BEADS CORE (005)
I401	CP07021U	IC UPC1851B MTS/VOL/SURR	△ L901	BZ03951	COIL LINE FILTER 4.7MH
I402	CP05751	IC AN5276 AUDIO OUTPUT	L904	BZ03931	COIL DC LINE NOISE FILTER 1MH
I501	CP06991U	IC TA1310N RAINFOREST	L905	BZ03901	DGC-COIL 32VR M10
I601	CP07081	IC AN5539N VERTICAL OUTPUT	L906	2122652M	FERRITE CORE
△ I901	CZ00862	STR-F6626(LF1351) REGULAR IC	L907	2122652M	FERRITE CORE
△ I902	2000465	IC PS2501-1 (KC/LC) OPTO ISOLATOR	L932	2122652M	FERRITE CORE
△ I903	CP05162F	IC REG.(SI-3050F) 9V REG.	L934	2122652M	FERRITE CORE
I913	CP05572	ANALOG MONOLITHIC IC (BA17809)	L936	2122652M	FERRITE CORE
I914	CP05571	IC BA17805	L950	2125807N	COIL 56UH(TYPE LHL08 TAPE)
I931	2381345	IC SE140N	L970	BZ03902	DGC-COIL 36VR M10
IX11	CP06911U	ANALOG MONOLITHIC IC (TC90A53N)	LL01	2123781R	FILTER COIL 101K (32/36UX01S)
			LL02	2123468M	FERRITE BEADS CORE LEAD 0.8MH (32/36UX01S)
		INDUCTORS	LX10	BH00697R	COIL 100UH
L001	BH00697R	COIL 100UH	LX11	BH00697R	COIL 100UH
L002	BH00697R	COIL 100UH	LX13	2123105M	LAL02 AXIAL COIL 15UH-K
L003	BH00697R	COIL 100UH	LX14	BH00697R	COIL 100UH
L004	2122653M	FERRITE CORE 1.65UH TAPE	LX15	BH00697R	COIL 100UH
L101	BH00697R	COIL 100UH (32/36UX01S)	LX19	BH00691R	COIL 33UH
L102	BH00697R	COIL 100UH	LX20	BH00697R	COIL 100UH
L103	BH00697R	COIL 100UH (32/36UX01S)	LX25	2123107M	LAL02 AXIAL COIL 22UH-K
L106	BH00697R	COIL 100UH			
L107	2123781R	FILTER COIL 101K (32/36UX01S)			TRANSISTORS
L201	BH00697R	COIL 100UH	Q001	2325691R	TRS CHIP(2SC2412KQ/R)
L300	BH00697R	COIL 100UH	Q003	2325691R	TRS CHIP(2SC2412KQ/R)
L370	2123107M	LAL02 AXIAL COIL 22UH-K	Q004	2325691R	TRS CHIP(2SC2412KQ/R)
L371	2123114M	COIL-AXIAL 68UH-K	Q005	2325691R	TRS CHIP(2SC2412KQ/R)
L372	2123114M	COIL-AXIAL 68UH-K	Q006	2325691R	TRS CHIP(2SC2412KQ/R)
L401	BH00697R	COIL 100UH	Q007	2325691R	TRS CHIP(2SC2412KQ/R)
L402	BH00697R	COIL 100UH	Q008	2325691R	TRS CHIP(2SC2412KQ/R)
L403	2122652M	FERRITE CORE	Q012	2325691R	TRS CHIP(2SC2412KQ/R)
L500	BH00697R	COIL 100UH	Q013	2325691R	TRS CHIP(2SC2412KQ/R)
L502	BH00697R	COIL 100UH	Q101	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)
L503	BH00697R	COIL 100UH	Q201	2325691R	TRS CHIP(2SC2412KQ/R)
L601	BH00204R	FILTER COIL 18UH	Q202	2325691R	TRS CHIP(2SC2412KQ/R)
L602	2122652M	FERRITE CORE	Q300	2325691R	TRS CHIP(2SC2412KQ/R)
L701	BH00685R	COIL 12UH	Q301	2325691R	TRS CHIP(2SC2412KQ/R)
L702	2125805N	COIL 39UH(TYPE LHL08 TAPE) (32UX01S/32GX01B)	Q370	2325691R	TRS CHIP(2SC2412KQ/R)
L702	BH00208R	FILTER COIL 39UH (36UX01S/36GX01B)	Q371	2325691R	TRS CHIP(2SC2412KQ/R)
L703	BZ03921	HORIZONTAL LINEARITY COIL 20UH (36UX01S/36GX01B)	Q401	2325691R	TRS CHIP(2SC2412KQ/R)
L703	BZ03922	HORIZONTAL LINEARITY COIL 22UH (32UX01S/32GX01B)	Q402	2325691R	TRS CHIP(2SC2412KQ/R)
L704	BZ03914	CHOKO COIL 680UH	Q405	2325781R	2SA1037KT146Q/R
L705	2122652M	FERRITE CORE	Q406	2325691R	TRS CHIP(2SC2412KQ/R)
L706	2122652M	FERRITE CORE	Q407	2325691R	TRS CHIP(2SC2412KQ/R)
L707	2122652M	FERRITE CORE	Q408	2325781R	2SA1037KT146Q/R
L854	2122255M	COIL-AXIAL 150UH-K	Q409	2325691R	TRS CHIP(2SC2412KQ/R)
L855	2122255M	COIL-AXIAL 150UH-K	Q410	2325691R	TRS CHIP(2SC2412KQ/R)

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
Q411	2325691R	TRS CHIP(2SC2412KQ/R)	R003	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q412	2325691R	TRS CHIP(2SC2412KQ/R)	R004	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q413	2325691R	TRS CHIP(2SC2412KQ/R)	R006	0195893R	RES 2125 CHIP 1/16W 560J TAPE
Q414	2325691R	TRS CHIP(2SC2412KQ/R)	R007	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q500	2325691R	TRS CHIP(2SC2412KQ/R)	R008	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q501	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R009	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q503	2325691R	TRS CHIP(2SC2412KQ/R)	R010	0700027M	RES.-CARBON FLM 1/16W 100-JB
Q504	2325781R	2SA1037KT146Q/R	R011	0700027M	RES.-CARBON FLM 1/16W 1.0K-JB
Q505	2325781R	2SA1037KT146Q/R	R012	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
Q506	2325781R	2SA1037KT146Q/R	R013	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
Q507	2325691R	TRS CHIP(2SC2412KQ/R)	R014	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q508	2325691R	TRS CHIP(2SC2412KQ/R)	R015	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q509	2325691R	TRS CHIP(2SC2412KQ/R) (32GX01B/32UX01S)	R016	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q510	2312941M	TRS. 2SC3413BC/1740S Q/R TA	R017	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q701	2323523M	TRS. 2SD789 D TAPE	R018	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
 Q702	CF02531F	TRS. 2SC5521	R020	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q751	2323434	TRS. 2SC1983 (O/Y)	R021	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE (32/36UX01S)
Q752	2326022M	TRS.2SC1741S Q/R TZ	R021	0195908R	RES 2125 CHIP 1/10W 2.2KJ TAPE 32/36GX01B)
Q851	2315491	TRS. 2SC4544	R022	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q852	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R023	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q854	2315491	TRS. 2SC4544	R024	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q855	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R025	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q857	2315491	TRS. 2SC4544	R026	0195883R	RES 2125 CHIP 1/16W 220J TAPE
Q858	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R027	0195883R	RES 2125 CHIP 1/16W 220J TAPE
Q859	2325703M	TRANSISTOR (2SA854S)	R028	0195883R	RES 2125 CHIP 1/16W 220J TAPE
Q860	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R029	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE
Q861	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R030	0195893R	RES 2125 CHIP 1/16W 560J TAPE
Q862	2325721M	TRS. 2SC1740S (Q/R/S/E) TAPE	R031	0195875R	RES 2125 CHIP 1/16W 100J TAPE
 Q905	2323782R	THYRISTOR 03P2M(TA)	R032	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q908	2327883M	TRS. 2SA1207 (S/T) SI 150MHZ600MW	R033	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
Q915	2325691R	TRS CHIP(2SC2412KQ/R)	R034	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
Q916	2325691R	TRS CHIP(2SC2412KQ/R)	R035	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
QL01	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R036	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
QL02	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R037	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
QL03	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R038	0700027M	RES.-CARBON FLM 1/16W 100-JB
QL04	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R039	0700027M	RES.-CARBON FLM 1/16W 100-JB
QL05	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R040	0195883R	RES 2125 CHIP 1/16W 220J TAPE
QL06	2327772M	TRS.2SC3413 (B/C) SI 200MHZ300MW (32/36UX01S)	R041	0195883R	RES 2125 CHIP 1/16W 220J TAPE
QL07	2325715M	TRS.2SA933S (Q/R) (32/36UX01S)	R042	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
QL08	2315381	TRS. 2SA1837 (32/36UX01S)	R043	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
QL09	2315391	TRS. 2SC4793 (32/36UX01S)	R044	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
QL10	2326821	TRANSISTOR 2SA1371 E/F (32/36UX01S)	R045	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
QL11	2325691R	TRS CHIP(2SC2412KQ/R) (32/36UX01S)	R046	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE
QX10	2325691R	TRS CHIP(2SC2412KQ/R)	R047	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
QX11	2325781R	2SA1037KT146Q/R	R053	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
QX12	2325691R	TRS CHIP(2SC2412KQ/R)	R054	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
QX13	2325691R	TRS CHIP(2SC2412KQ/R)	R055	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
QX15	2325781R	2SA1037KT146Q/R	R056	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
QX16	2325691R	TRS CHIP(2SC2412KQ/R)	R057	0195881R	RES 2125 CHIP 1/16W 180J TAPE
QX17	2325691R	TRS CHIP(2SC2412KQ/R)	R058	0195939R	RES.2125 CHIP 1/16W 39KJ TAPE
QX18	2325691R	TRS CHIP(2SC2412KQ/R)	R059	0700062M	RES.-CARBON FLM 1/16W 39K-JB
QX19	2325691R	TRS CHIP(2SC2412KQ/R)	R060	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB
			R061	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
			R062	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R001	0700027M	RES.-CARBON FLM 1/16W 100-JB	R063	0195922R	RES 2125 CHIP 1/16W 8.2KJ TAPE
R002	0700027M	RES.-CARBON FLM 1/16W 100-JB	R064	0195931R	RES 2125 CHIP 1/16W 18KJ TAPE
		RESISTORS			



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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R065	0195931R	RES 2125 CHIP 1/16W 18KJ TAPE	R109	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R066	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R110	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE (32/36UX01S)
R067	0195897R	RES 2125 CHIP 1/16W 820J TAPE	R111	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE (32/36UX01S)
R068	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R112	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE (32/36UX01S)
R069	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R114	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R070	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R116	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R071	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE	R117	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R072	0700027M	RES.-CARBON FLM 1/16W 100-JB	R118	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R073	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R119	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R074	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE	R120	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R080	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R121	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R081	0195902R	RES 2125 CHIP 1/16W 1.2KJ TAPE	R122	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R082	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R123	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R083	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	R124	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R084	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R125	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R085	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE	R126	0195248R	RES 3216 CHIP 1/8 W 000 TAPE (32/36UX01S)
R087	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE	R127	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R09A	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R128	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R09C	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R129	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R09E	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R133	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0A1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R134	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0A2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R137	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0A3	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R138	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0A4	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R201	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0A5	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R202	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0A6	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R203	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE
R0A7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R204	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE
R0A8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R205	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R0A9	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R206	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0C1	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R207	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0C2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R208	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE
R0C3	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R209	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0C4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R210	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0C5	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R211	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
R0C8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R212	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
R0E1	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R213	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R217	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E5	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R218	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE
R0E6	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R219	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE
R0E7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R220	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE
R0E8	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R221	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E9	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R300	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R302	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0F3	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R303	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F4	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R305	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0F5	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R306	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0F6	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R307	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0F7	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R308	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R101	0195883R	RES 2125 CHIP 1/16W 220J TAPE (32/36UX01S)	R309	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R102	0195883R	RES 2125 CHIP 1/16W 220J TAPE (32/36UX01S)	R310	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R103	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE (32/36UX01S)	R311	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R104	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	R312	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R105	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R313	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R106	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R314	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R107	0700027M	RES.-CARBON FLM 1/16W 100-JB	R315	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R108	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R316	0195883R	RES 2125 CHIP 1/16W 220J TAPE



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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R321	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R413	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R322	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R414	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R323	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R415	0195939R	RES.2125 CHIP 1/16W 39KJ TAPE
R324	0195871R	RMC73S-2A750JR	R416	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R326	0195871R	RMC73S-2A750JR	R417	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R327	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE	R418	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R328	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE	R419	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R329	0195871R	RMC73S-2A750JR	R420	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R330	0195871R	RMC73S-2A750JR	R421	0195939R	RES.2125 CHIP 1/16W 39KJ TAPE
R331	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R422	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R333	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R424	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R334	0195932R	RES. 2125CHIP 1/10W 20KJ TAPE	R425	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R336	0195871R	RMC73S-2A750JR	R426	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R337	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE	R427	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R338	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE	R428	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R339	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R429	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R340	0195870R	RES.2125 CHIP 1/10W 68J TAPE	R430	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R341	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R431	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R342	0195870R	RES.2125 CHIP 1/10W 68J TAPE	R432	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R343	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R433	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R344	0195870R	RES.2125 CHIP 1/10W 68J TAPE	R434	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R345	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R435	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R346	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R436	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R347	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R437	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R348	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R438	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R349	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R439	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R351	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE	R440	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R352	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R441	0100077M	RES.-CARBON FLM 1/8W 3.3K-JB
R353	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R442	0100077M	RES.-CARBON FLM 1/8W 3.3K-JB
R354	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R453	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R355	0100043M	RES.-CARBON FLM 1/8W 120-JB	R459	0195937R	RES.2125 CHIP 1/16W 33KJ TAPE
R356	0100047M	RES.-CARBON FLM 1/8W 180-JB	R460	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R357	0195897R	RES 2125 CHIP 1/16W 820J TAPE	R461	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R358	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R462	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R362	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R463	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R363	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R464	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R370	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R465	AT03593S	METAL OX. 1.5KOHM 3W
R371	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R466	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R372	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R468	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R373	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	R471	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R380	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R473	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R382	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R474	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R383	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R475	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R384	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R476	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R386	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R477	0195937R	RES.2125 CHIP 1/16W 33KJ TAPE
R401	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R479	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R402	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE	R480	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R403	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R481	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R404	0195945R	RES 2125 CHIP 1/16W 68KJ TAPE	R482	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R405	0195930R	RES.CHIP 1/16W 16K-J TAPE	R500	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R406	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R501	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R407	0195911R	RESISTOR MINI-CHIP RMC1/16 3.0K-J TAPE	R502	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R408	0195917R	RES.CHIP RMC1/16 5.1K-J TAPE	R503	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R409	0700038M	RES.-CARBON FLM 1/16W 680-JB	R504	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE
R410	0700038M	RES.-CARBON FLM 1/16W 680-JB	R505	0195889R	RES.2125 CHIP 1/10W 390J TAPE
R411	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R506	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R412	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R507	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R508	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	R581	0195885R	RESISTOR 2125 CHIP 1/16W 270J TAPE
R509	0195889R	RES.2125 CHIP 1/10W 390J TAPE	R608	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE (32UX01S/32UX01B)
R510	0195937R	RES.2125 CHIP 1/16W 33KJ TAPE	R609	AT03406S	METAL OX. 150OHM 2W (35UX01S/36GX01B)
R511	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R609	AT03413S	METAL OX. 270OHM 2W (32UX01S/32GX01B)
R512	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R610	0195887R	RES 2125 CHIP 1/16W 330J TAPE
R513	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R611	0700058M	RES.-CARBON FLM 1/16W 22K-JB (36UX01S/36GX01B)
R514	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R611	0700061M	RES.-CARBON FLM 1/16W 33K-JB (32UX01S/32GX01B)
R515	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE	R612	0700061M	RES.-CARBON FLM 1/16W 33K-JB
R516	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	R613	0195931R	RES 2125 CHIP 1/16W 18KJ TAPE (36UX01S/36GX01B)
R517	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE (32/36UX01S)	R613	0195935R	RES 2125 CHIP 1/16W 27K-J TAPE (32UX01S/23GX01B)
R518	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE (32/36UX01S)	R614	0700034M	RES.-CARBON FLM 1/16W 330-JB
R521	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R615	0119731M	RES.-MTL 0X1DE 1W R68-K TAPE (36UX01S/36GX01B)
R522	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	R615	0119841M	RES.-MTL OXIDE FLM 1W 0.82-JB (32UX01S/32GX01B)
R523	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R617	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R525	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R618	0119601M	RES.-MTL FLM 1/8W 560-FB
R526	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R619	0119599M	RES.-MTL FLM 1/8W 470-FB
R527	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R621	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R528	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R622	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R529	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R701	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R530	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE	R702	AT03399S	METAL OX. 82 OHM 2W (36UX01S/36GX01B)
R531	0195906R	RESISTOR MINI-CHIP RMC1/16 1.8K-J TAPE	R703	0100077M	RES.-CARBON FLM 1/8W 3.3K-JB
R532	0195879R	RES 2125 CHIP 1/16W 150J TAPE	R704	0700032M	RES.-CARBON FLM 1/16W 220-JB
R533	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R705	0113754M	RES.-CARBON FLM 1/2W 1.5K-JB
R534	0195937R	RES.2125 CHIP 1/16W 33KJ TAPE	 R706	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R535	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R707	AT03424S	METAL OX. 680OHM 2W
R536	AT03865M	390OHM 1/2W RDS50 CARB FILM RES	 R710	0700053M	RES.-CARBON FLM 1/16W 8.2K-JB
R537	AT03865M	390OHM 1/2W RDS50 CARB FILM RES	R711	AT00958F	RES.MTL OXIDE FLM 7W 120 OHM
R538	AT03865M	390OHM 1/2W RDS50 CARBON FILM RES	R712	0195887R	RES 2125 CHIP 1/16W 330J TAPE
R539	0700032M	RES.-CARBON FLM 1/16W 220-JB	R713	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R540	0700032M	RES.-CARBON FLM 1/16W 220-JB	R714	0113733M	RES.CARBON FLM SRD1/2P-B 220-J
R541	0700032M	RES.-CARBON FLM 1/16W 220-JB	R715	0100039M	RES.-CARBON FLM 1/8W 82-JB (32UX01S/32GX01B)
R542	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R715	AT03854M	56.0OHM 1/2W RDS50 CARB FILM RES (36UX01S/36GX01B)
R543	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R716	AT03864M	330OHM 1/2W RDS50 CARBON FILM RESISTOR
R544	0195883R	RES 2125 CHIP 1/16W 220J TAPE	R717	0100089M	RES.-CARBON FLM 1/8W 10K-JB (32UX01S/32GX01B)
R545	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R717	0100093M	RES.-CARBON FLM 1/8W 15K-JB (36UX01S/36GX01B)
R546	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	R718	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R547	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE	R719	0100079M	RES.-CARBON FLM 1/8W 3.9K-JB (32UX01S/32GX01B)
R548	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE	R719	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB (36UX01S/36GX01B)
R549	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R720	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R550	0195956R	RES.CHIP 1/16W 180K-J TAPE	R74C	0100089M	RES.-CARBON FLM 1/8W 10K-JB (32UX01S / 32/36GX01B)
R554	0195902R	RES 2125 CHIP 1/16W 1.2KJ (32GX01B/32UX01S)	R74C	0100090M	RES.-CARBON FLM 1/8W 11K-JB (36UX01S)
R555	0195895R	RES.2125 CHIP 1/10W 680J (32GX01B/32UX01S)	R74H	0100093M	RES.-CARBON FLM 1/8W 15K-JB
R556	0195858R	RES MINI-CHIP RMC1/10 22-J (32GX01B/32UX01S)	R801	0100053M	RES.-CARBON FLM 1/8W 330-JB
R557	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R802	AT03602S	METAL OX. 3.3KOHM 3W
R559	0700032M	RES.-CARBON FLM 1/16W 220-JB	R803	AT03602S	METAL OX. 3.3KOHM 3W
R560	0700032M	RES.-CARBON FLM 1/16W 220-JB	R804	AT03602S	METAL OX. 3.3KOHM 3W
R569	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R811	0119561M	RES.-MTL FLM 1/8W 12-FB
R570	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R812	0119561M	RES.-MTL FLM 1/8W 12-FB
R571	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R813	0119561M	RES.-MTL FLM 1/8W 12-FB
R572	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R851	AT03602S	METAL OX. 3.3KOHM 3W
R573	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R852	AT03602S	METAL OX. 3.3KOHM 3W
R575	0195891R	RES 2125 CHIP 1/16W 470J TAPE	R853	AT03602S	METAL OX. 3.3KOHM 3W
R576	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R854	0113750M	RES.-CARBON FLM 1/2W 1K-JB
R578	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R855	0113750M	RES.-CARBON FLM 1/2W 1K-JB
R579	0195891R	RES 2125 CHIP 1/16W 470J TAPE	R856	0113750M	RES.-CARBON FLM 1/2W 1K-JB
R580	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R857	0100053M	RES.-CARBON FLM 1/8W 330-JB






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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R858	0100053M	RES.-CARBON FLM 1/8W 330-JB	RK01	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R861	0700029M	RES.-CARBON FLM 1/16W 150-JB	RK02	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R869	0700029M	RES.-CARBON FLM 1/16W 150-JB	RK03	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R871	0700029M	RES.-CARBON FLM 1/16W 150-JB	RK04	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R889	AT03857M	100OHM 1/2W RDS50 CARBON FILM RESISTOR	RK05	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R890	AT03857M	100OHM 1/2W RDS50 CARBON FILM RESISTOR	RK06	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R891	AT03857M	100OHM 1/2W RDS50 CARBON FILM RESISTOR	RK07	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R893	0100073M	RES.-CARBON FLM 1/8W 2.2K-JB	RK08	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R896	0187052M	RES.-CARBON FLM 1/16W 300-JB (36UX01S)	RK09	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R896	0700033M	RES.-CARB FLM 1/16W 270-JB (32UX01S / 32/36GX01B)	RK10	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R897	0187052M	RES.-CARB FLM 1/16W 300-JB (36UX01S)	RK11	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R897	0700033M	RES.-CARB FLM 1/16W 270-JB (32UX01S/32/36GX01B)	RK12	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R898	0187052M	RES.-CARBON FLM 1/16W 300-JB (36UX01S)	RK13	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R898	0700033M	RES.-CARBON FLM 1/16W 270-JB	RK14	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R899	0700027M	RES.-CARBON FLM 1/16W 100-JB	RK15	0195250R	RES 2125 CHIP 1/16W 000 TAPE
 R902	CJ00362	3/2 OHM POSITIVE THERMISTOR	RK16	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R905	AT03304S	METAL OX. 22K OHM 1W	RK17	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R906	0147607	RES.-WIRE WOUND 7W 0.75-K	RK18	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R910	0100035M	RES.-CARBON FLM 1/8W 56-JB	RK19	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R914	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RK20	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R916A	0119688M	RES.-MTL FLM 1W 0.22-JB	RK21	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R916B	0119688M	RES.-MTL FLM 1W 0.22-JB	RK23	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R916C	0119688M	RES.-MTL FLM 1W 0.22-JB	RK24	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R925	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE	RK25	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R927	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	RK26	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R928	0195895R	RES.2125 CHIP 1/10W 680J TAPE	RK27	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R930	0100113M	RES.-CARBON FLM 1/8W 100K-JB	RK28	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R931	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RK29	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R932	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RK30	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R933	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RK31	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R934	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RK32	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R935	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE	RK33	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R936	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE	RK34	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R940	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE	RK35	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R941	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE	RK36	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R945	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RK37	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R948	0119693M	RES.-MTL FLM 1W 0.39-JB	RK38	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R949	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE	RK39	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R960	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE	RK40	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R961	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE	RK41	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R962	AT03539S	METAL OX. 15.0OHM 3W (32/36UX01S)	RK42	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R962	AT03542S	METAL OX. 18.0OHM 3W (32/36GX01B)	RK43	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R963	AT03539S	METAL OX. 15.0OHM 3W (32/36UX01S)	RK44	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R964	0700044M	RES.-CARBON FLM 1/16W 1.8K-JB	RK45	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R966	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RK46	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R976	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	RK47	0195250R	RES 2125 CHIP 1/16W 000 TAPE
 R977	0700027M	RES.-CARBON FLM 1/16W 100-JB	RK48	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R980	0195922R	RES 2125 CHIP 1/16W 8.2KJ TAPE	RK49	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R981	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE	RK50	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R984	0195875R	RES 2125 CHIP 1/16W 100J TAPE	RK51	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R985	0113770M	RESISTOR CARBON FILM SRD1/2P-B 6.8K-J	RK52	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R990	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RK53	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R991	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RK54	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R992	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RK55	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
R994	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RK56	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RC371	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RK57	0195250R	RES 2125 CHIP 1/16W 000 TAPE










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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RK58	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL14	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE (32/36UX01S)
RK59	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL15	0195937R	RES.2125 CHIP 1/16W 33KJ TAPE (32/36UX01S)
RK60	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL16	0195922R	RES 2125 CHIP 1/16W 8.2KJ TAPE (32/36UX01S)
RK61	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL17	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)
RK62	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL18	0195891R	RES 2125 CHIP 1/16W 470J TAPE (32/36UX01S)
RK63	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL19	0195879R	RES 2125 CHIP 1/16W 150J TAPE (32/36UX01S)
RK64	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL20	0195887R	RES 2125 CHIP 1/16W 330J TAPE (32/36UX01S)
RK65	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL21	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)
RK66	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL22	0100059M	RES.-CARBON FLM 1/8W 560-JB (32/36UX01S)
RK67	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL23	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)
RK68	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL24	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)
RK69	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL25	AT03844M	10.0OHM 1/2W RDS50 CARBON FILM RES (32/36UX01S)
RK70	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL26	0100071M	RES.-CARBON FLM 1/8W 1.8K-JB (32/36UX01S)
RK71	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL27	0100119M	RES.-CARBON FLM 1/8W 180K-JB (32/36UX01S)
RK72	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL28	0100119M	RES.-CARBON FLM 1/8W 180K-JB (32/36UX01S)
RK73	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL29	0100071M	RES.-CARBON FLM 1/8W 1.8K-JB (32/36UX01S)
RK74	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL30	0100017M	RES.-CARBON FLM 1/8W 10-JB (32/36UX01S)
RK75	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL31	0100067M	RES.-CARBON FLM 1/8W 1.2K-JB (32/36UX01S)
RK76	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL32	0100017M	RES.-CARBON FLM 1/8W 10-JB (32/36UX01S)
RK77	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL33	AT03851M	33.0OHM 1/2W RDS50 CARBON FILM RES (32/36UX01S)
RK78	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL34	0188097M	RES.-CARBON FLM 3.3-J 1/2W (32/36UX01S)
RK79	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL35	AT03851M	33.0OHM 1/2W RDS50 CARBON FILM RES (32/36UX01S)
RK80	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL36	0188097M	RES.-CARBON FLM 3.3-J 1/2W (32/36UX01S)
RK81	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL37	0147568	RES.-WIRE WOUND 5W 150-JM (32/36UX01S)
RK82	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL38	0100021M	RES.-CARBON FLM 1/8W 15-JB (32/36UX01S)
RK83	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL39	0700027M	RES.-CARBON FLM 1/16W 100-JB (32/36UX01S)
RK84	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL40	0110237S	RES.-MTL OXIDE FLM 2W 470-J (32/36UX01S)
RK85	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL41	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB (32/36UX01S)
RK86	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL42	0700027M	RES.-CARBON FLM 1/16W 100-JB (32/36UX01S)
RK87	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RL43	0100113M	RES.-CARBON FLM 1/8W 100K-JB (32/36UX01S)
RK88	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RL44	AT03577S	METAL OX. 390OHM 3W (32/36UX01S)
RK89	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX10	0195897R	RES 2125 CHIP 1/16W 820J TAPE
RK90	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RX11	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RK91	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX12	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RK92	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RX13	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE
RK93	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX14	0195887R	RES 2125 CHIP 1/16W 330J TAPE
RK95	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX15	0195891R	RES 2125 CHIP 1/16W 470J TAPE
RK96	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX16	0195939R	RES.2125 CHIP 1/16W 39KJ TAPE
RK97	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	RX17	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RKC1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX18	0195893R	RES 2125 CHIP 1/16W 560J TAPE
RKC2	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RX19	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RKC3	0195248R	RES 3216 CHIP 1/8 W 000 TAPE (32/36UX01S)	RX20	0195897R	RES 2125 CHIP 1/16W 820J TAPE
RKC4	0195250R	RES 2125 CHIP 1/16W 000 TAPE (32/36UX01S)	RX21	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RKC5	0195250R	RES 2125 CHIP 1/16W 000 TAPE (32/36UX01S)	RX23	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RL02	0195945R	RES 2125 CHIP 1/16W 68KJ TAPE (32/36UX01S)	RX24	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RL03	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE (32/36UX01S)	RX25	0195898R	RESISTOR MINI-CHIP RMC1/10 910-J TAPE
RL04	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	RX26	0195885R	RESISTOR 2125 CHIP 1/16W 270J TAPE
RL05	0195881R	RES 2125 CHIP 1/16W 180J TAPE (32/36UX01S)	RX27	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE
RL06	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE (32/36UX01S)	RX28	0195891R	RES 2125 CHIP 1/16W 470J TAPE
RL07	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE (32/36UX01S)	RX29	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
RL08	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE (32/36UX01S)	RX30	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RL09	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE (32/36UX01S)	RX31	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RL10	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	RX32	0195897R	RES 2125 CHIP 1/16W 820J TAPE
RL11	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	RX33	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RL12	0195885R	RESISTOR 2125 CHIP 1/16W 270J TAPE (32/36UX01S)	RX34	0195935R	RES 2125 CHIP 1/16W 27K-J TAPE
RL13	0195875R	RES 2125 CHIP 1/16W 100J TAPE (32/36UX01S)	RX35	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE

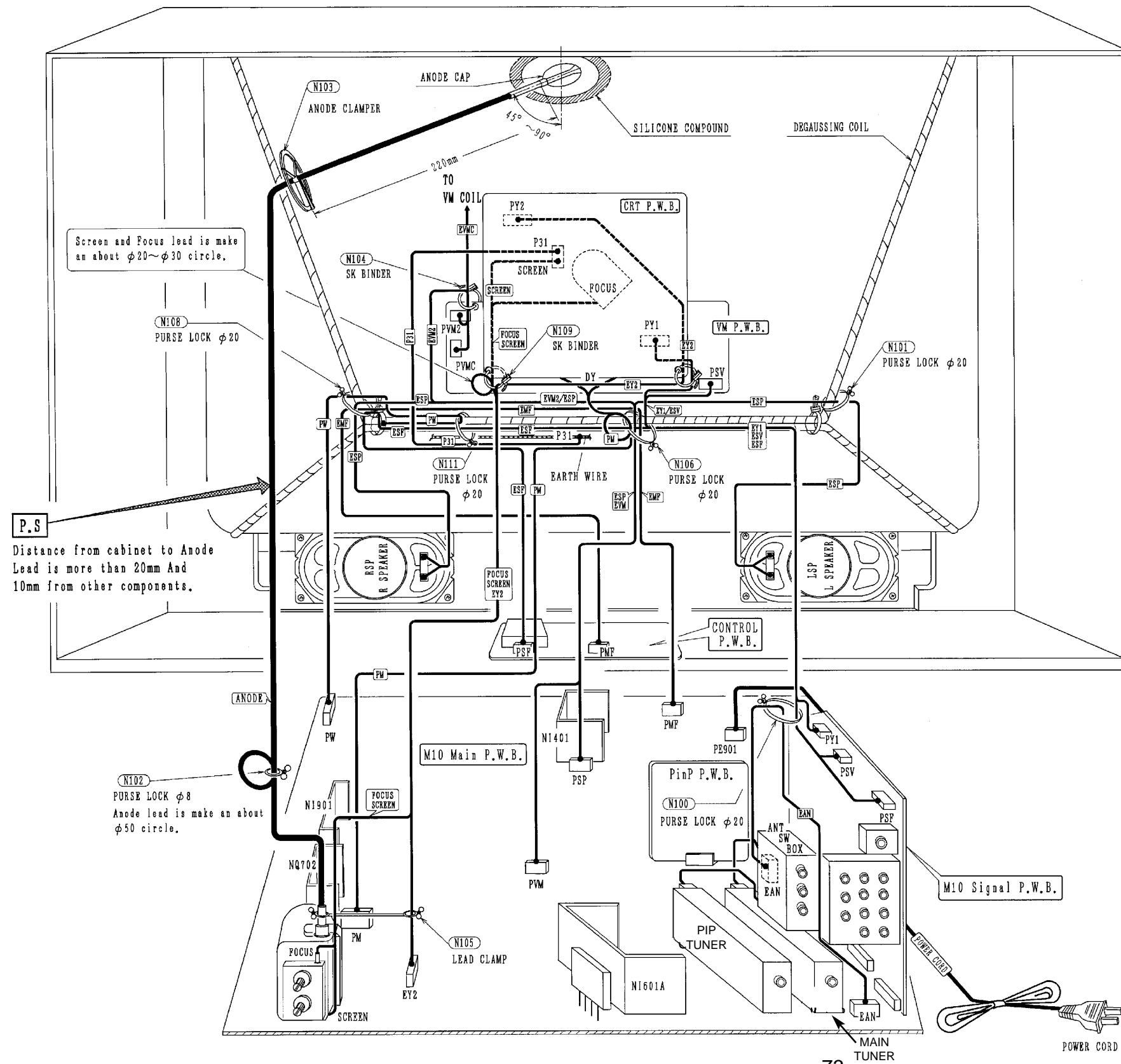
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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RX36	0195875R	RES 2125 CHIP 1/16W 100J TAPE	E201	FQ00021	BATTERY(R6P-AA)
RX37	0195897R	RES 2125 CHIP 1/16W 820J TAPE	E301	HL01421	REMOTE CON CLU-431UG(32/26UX01S)
RX38	0195891R	RES 2125 CHIP 1/16W 470J TAPE	E301	HL01422	REMOTE CON CLU-381UG (32/36GX01B)
RX39	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE	E601	BY00821	DY-32V 110 SVC
RX40	0195875R	RES 2125 CHIP 1/16W 100J TAPE	E601	AZ00102M	PROTECTOR(CRXT491001)
RX41	0195250R	RES 2125 CHIP 1/16W 000 TAPE	E602	EZ00976	CRT GROUNDING WIRE 36INCH
RX42	0195897R	RES 2125 CHIP 1/16W 820J TAPE	E602	EZ00975	CRT GROUNDING WIRE 32INCH
RX47	0195952R	RMC73S-2A124JR	E603	GX00131	CHEVRON FUNNEL MAGNET
RX48	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	E603	2771461	EDGE MAGNET
RX49	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	E604	2773672	CF-MAGNET (32GX01B)
RX50	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE	E604	2776541	VM MAGNET (C-C) (32UX01S)
RX51	0195897R	RES 2125 CHIP 1/16W 820J TAPE	E851	EY00941	CRT-SOCKET HPS1600-016409 (32UX01S / 32/36GX01B)
RX52	0195923R	RESISTOR MINI-CHIP RMC1/16 9.1K-J TAPE	E851	EY00943	CRT-SOCKET HPS1600-016919 (36UX01S)
RX53	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	E901	EV00905	POWER CORD M10
RX54	0195967R	RESISTOR MINI-CHIP RMC1/16 510K-J TAPE	 E902	EF02491	CONNECTOR 01A-A0R0-181BROWN
RX55	0195250R	RES 2125 CHIP 1/16W 000 TAPE	 E903	EF02492	CONNECTOR 01A-A0R0-181RED
RX60	0195250R	RES 2125 CHIP 1/16W 000 TAPE	EAN	2974061S	CONNE. 3J L=240 (32/36UX01S)
RX61	0195250R	RES 2125 CHIP 1/16W 000 TAPE	EMF	2908737	5P CONNE.L=1000
RX63	0195250R	RES 2125 CHIP 1/16W 000 TAPE	EP91	AZ00109M	PROTECTOR CRXT491007
RX64	0195250R	RES 2125 CHIP 1/16W 000 TAPE	ESF	2973834S	7P CONNE.L=750
RX67	0195250R	RES 2125 CHIP 1/16W 000 TAPE	ESP	EF20541	5J EH CONNECTOR L=680MM (32GX01B/32UX01S)
RX69	0195250R	RES 2125 CHIP 1/16W 000 TAPE	ESP	EF20542	5P 2.5MM PITCH CONN L=820MM (36GX01B/36UX01S)
RX70	0700053M	RES.-CARBON FLM 1/16W 8.2K-JB	ESV	2908665	PH 3P CONNE. L=360 36UX
RX71	0195250R	RES 2125 CHIP 1/16W 000 TAPE	EVM	2973798S	6P CONNE.L=470 36UX
RX74	0195250R	RES 2125 CHIP 1/16W 000 TAPE	EVMC	2976645	2J CONNE. L=240 (36UX01S)
			EVMC	2979222	2J CONN (L=120MM) (32UX01S)
		MISCELLANEOUS	EY2	2976675	4J EH CONNECTOR (32UX01S/32GX01B)
#100	QD20032	36UX F/FRAME COSMETICS	EY2	2976677	4P CONNE.L=680 (36UX01S/36GX01B)
#100	QD20241	32GX F/F COSMETICS	 F901	FN00291	FUSE 125V 8A
#101	QD20033	36GX F/FRAME COSMETIC	G801	CJ00071R	SPARK GAP AG15PC-152FS-K2M
#101	QD20242	32UX F/F COSMETICS	 G901	2340741	SURGE PROTECTOR DSP-301N-S00B
#105	QD09881	M10 32GX01B FRAME	 H901	2793313	CP-EXN-G131P365L
#106	QD09882	M10 32UX01B FRAME	J201	ES00261	JACK 03P HORIZONTAL
#108	PH08751	R/C LENS M10	JS01	ES00271	JACK S-TERMINAL
#109	PH08821	INDOOR TRIM AV	JY01	ES00221	JACK US6P-6P
#110	QD09791	FRAME 36UX	JY02	ES00222	JACK US6P-5P
#110	PH08782	CONTROL PANEL UX	N103	3705232	ANODE CLAMPER 94V0 (1010N)
#111	PH08771	AV DOOR 32GX	N105	3700342	WIRE CLAMP V0
#112	QD09792	FRONT FRAME 36GX	N105	3700342	WIRE CLAMP V0
#112	PH08772	AV DOOR 32UX	N107	3797711	PLASTIC RIVET PA (36UX01S)
#113	PH08921	CONTROL TRIM 32UX	N108	3785522	V LOCK 20
#117	PC04672	CONTROL BUTTON M10	N111	3785522	V LOCK 20
#118	3487428	HITACHI BADGE 55(G)	N201	QR44742	M10 INST.BOOK(ENG)
#130	QD09851	BACK COVER 32 M10	N201	QR44751	M10 INST.BOOK(FRN)
#131	PC04672	CONTROL BUTTON M10	N202	H462472	99 CTV WARRANTY CARD(20-36)
#135	PH08772	AV DOOR 36UX	N202B	H462271	FRENCH WARRANTY CARD
#136	PH08771	AV DOOR 36GX	N203	H462851	V-CHIP GUIDE Y2K CTV
#140	PH08751	R/C LENS M10	N211	H462528	M10 EASY GRAPHIC GUIDE
#160	3487428	HITACHI BADGE 55(G)	N402	3446867	SOUND HEAT SINK M10
#165	PH08782	CONTROL PANEL 36UX	N601	4615641	WEDGE
#167	PH08921	CONTROL TRIM 36UX	N606	3330944	EARTH SPRING
#180	PH08812	INDOOR INSULATOR 36UX	N606	3330941	EARTH SPRING
#182	PH08821	INDOOR TRIM AV	N611	2772211	MAG. PIECE
#190	PH09221	DECORATION PLATE 36UX	N612	2956801	EARTH RING
#300	QD09622	BACK COVER 36 M10	N612	2956801	EARTH RING
#310	3727972	POWER CORD HANGER	N702	3442072	HEAT SINK (H) W50

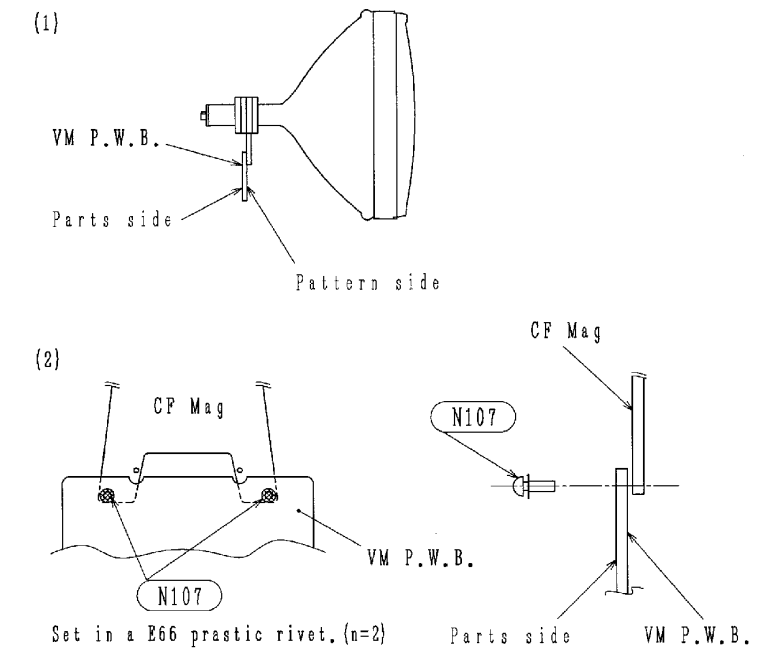
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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
N751	3445563	HEAT SINK A3LXU	 X901	AJ00322	ENC271D-14A
ND901	MA01061	POWER SUB HEAT SINK 85A A1100P-H14			
ND934	3445622	HEAT SINK OSH-1025-SPL (36UX01S/36GX01B)			QUICK REFERENCE PARTS LIST
ND936	3445622	HEAT SINK OSH-1025-SPL (32/36UX01S)	I001	CP07041U	Main Microprocessor IC
NF901	FP00031R	FUSE HOLDER TP00351-51	I002	CP05011R	Reset IC
NI601A	MA01114	HEAT SINK (V) M10 A1100P-H14	I003	CP05271U	Eeprom
NI901	MA01261	METAL PARTS FOR VTR (HEAT SINK)	I301	CP0703	A/V Selector IC
NI914	3445624	HEATSINK OSH-1035-SPL (32/36UX01S)	I402	CP05751	Audio Output IC
NQ08	MC00104	HEAT SINK P10 H45 19 A6063S-75 (32/36UX01S)	I501	CP06991U	Rainforest IC
NQ09	MC00104	HEAT SINK P10 H45 19 A6063S-75 (32/36UX01S)	I601	CP07081	Vertical Output IC
NQ09S	9414017	SILICONE COMPOUND(G-746) (32/36UX01S)	I901	CZ00862	B+ Regulator IC
NQ851	4348493	CPT HEAT SINK A2LXU AL	I903	CP05162F	9 V regulator
NQ854	4348493	CPT HEAT SINK A2LXU AL		HL01421	R/C UX CLU431-UG
NQ857	4348493	CPT HEAT SINK A2LXU AL		HL01422	R/C GX CLU381-UG
P31	2661751	2P PLUG PIN WITH BASE	E601	BY00821	Deflection Yoke Assy.
 PE901	ED01851	PLUG 5289-2A	F901	FN00291	8A 125V Line Fuse
PJIG1	2959056	PIN POST(7P)		QR44742	Owner's Guide (English)
 PM	2665272	4P PLUG PIN WITH BASE		H462851	V-Chip Guide
PMF	2959054	PINPOST 5P PH	T701	BW00661	Horizontal Driver Transf.
PMF	2959054	PINPOST 5P PH	T702	BW02371	Flyback Transformer
PPM	ED00572	CP-TAC-L15X-A1 (32/36UX01S)	U101	HC00461	Main Tuner
PSF	2902266	PLUG PIN SUB MINI 7P	U102	HC00461	PiP Tuner
PSM1	ED00516	CP-TAC-L20P-A1	U201	CZ00641	R/C Receiver
PSM1	ED00576	CP-TAC-L20X-A1	V1	DE01421	CRT Assy (36UX01B)
PSM2	ED00516	CP-TAC-L20P-A1	V1	DE01761	CRT Assy (36GX01B)
PSM2	ED00576	CP-TAC-L20X-A1	V1	DE01371	CRT Assy (32UX/GX01B)
PSM3	ED00512	CP-TAC-L15P-A1			
PSM3	ED00572	CP-TAC-L15X-A1			
PSP	2902264	PLUG PIN SUB MINI 5P			
PSV	2959052	PIN POST (PH 3P) (32/36UX01S)			
PVM	2902265	PLUG PIN SUB MINI 6P (32/36UX01S)			
PVM	2902265	PLUG PIN SUB MINI 6P (32/36UX01S)			
PVMC	2902261	PLUGPIN SUB MINI 2P (32/36UX01S)			
PW	2903544	4P PLUG PIN WITH BASE			
PY1	2959055	CONNECTOR-6P(PH)			
PY2	2902263	PLUG PIN SUB MINI 4P			
S201	FE10332R	SWITCH (SWP01N01TKSH0636BT)			
S202	2633322	PUSH SWITCH 5-5P TACT SW LONG NOB			
S203	FE10332R	SWITCH (SWP01N01TKSH0636BT)			
 S901	FJ00142	RELAY ALKS329			
 S902	FJ00142	RELAY ALKS329			
SP451	GK00262	SPEAKER 6X12D			
SP452	GK00262	SPEAKER 6X12D			
 T701	BW00661	H-DRIVE TRANS.			
 T702	BW02371	HI.VOLT.TRANS HFL-1335T			
 T901	BT01622	SW.TRANS EE40F13U-M10			
 T902	BT01611	POWER TRANSFORMER (0.07A 16V)			
U101	HC00461	MAIN TUNER ENG36605G			
U102	HC00461	PIP TUNER ENG36605G (32/36UX01S)			
U201	CZ00641	GPIU281Q R/C RECEIVER			
V1	DE01421	PICTURE TUBE (36UX01S)			
V1	DE01761	COLOR PICTURE TUBE (36GX01B)			
V1	DE01371	A80LJF30X(W) (32UX01S/32GX01B)			
X001	BP01141	OSCILLATOR 16MHZ			
X500	2168771	X'TAL CSB503F30			
X501	2791501	CRYSTAL HC-49/U			

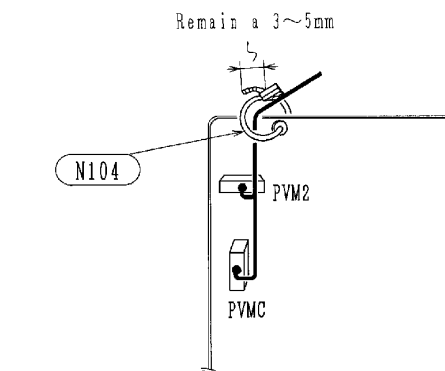
36UX01S M10 WIRING DRESSING



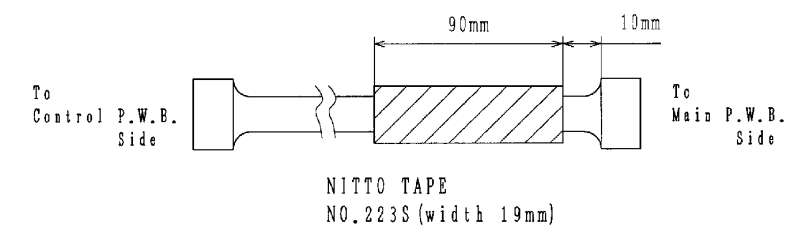
1. VM P.W.B. Assemble is below.



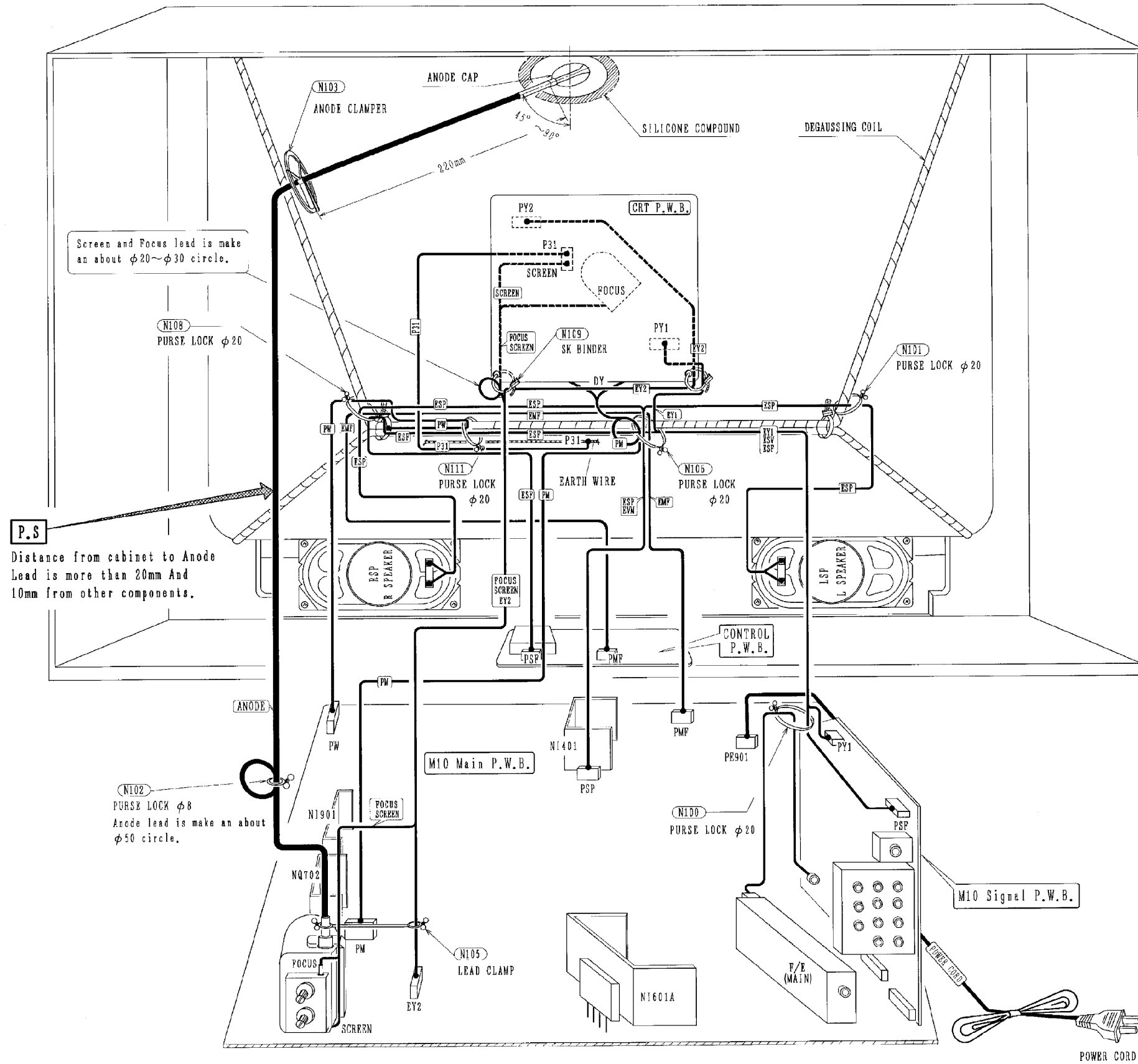
2. N104 Assemble is below.



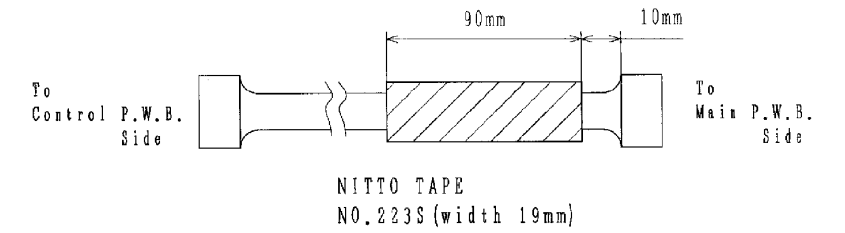
3. Preparatory work of EMP is below.



36GX01B
M10 WIRING DRESSING

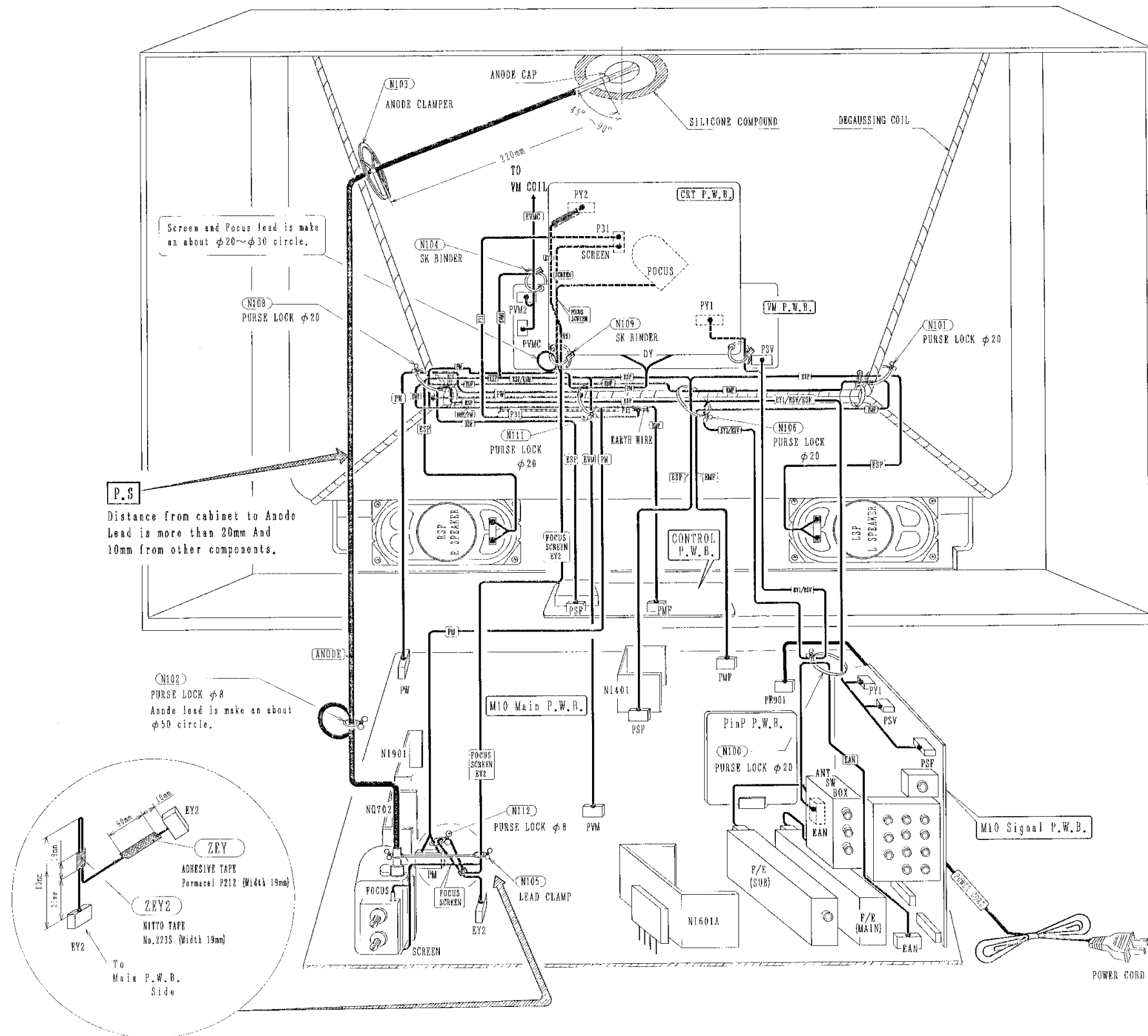


1. Preparatory work of EMF is below.

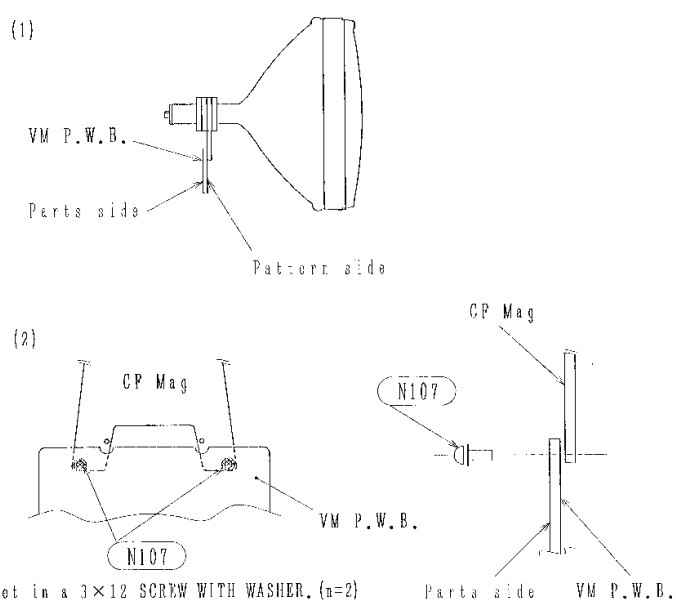


32UX01S

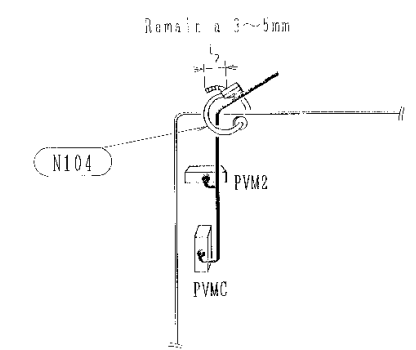
M10 WIRING DRESSING



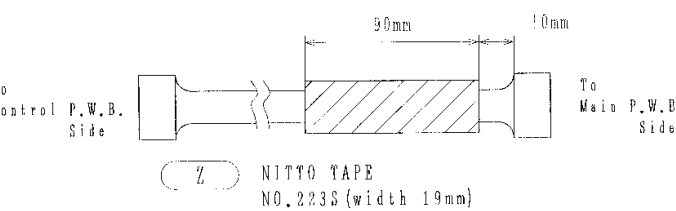
1. VM P.W.B. Assemble is below.



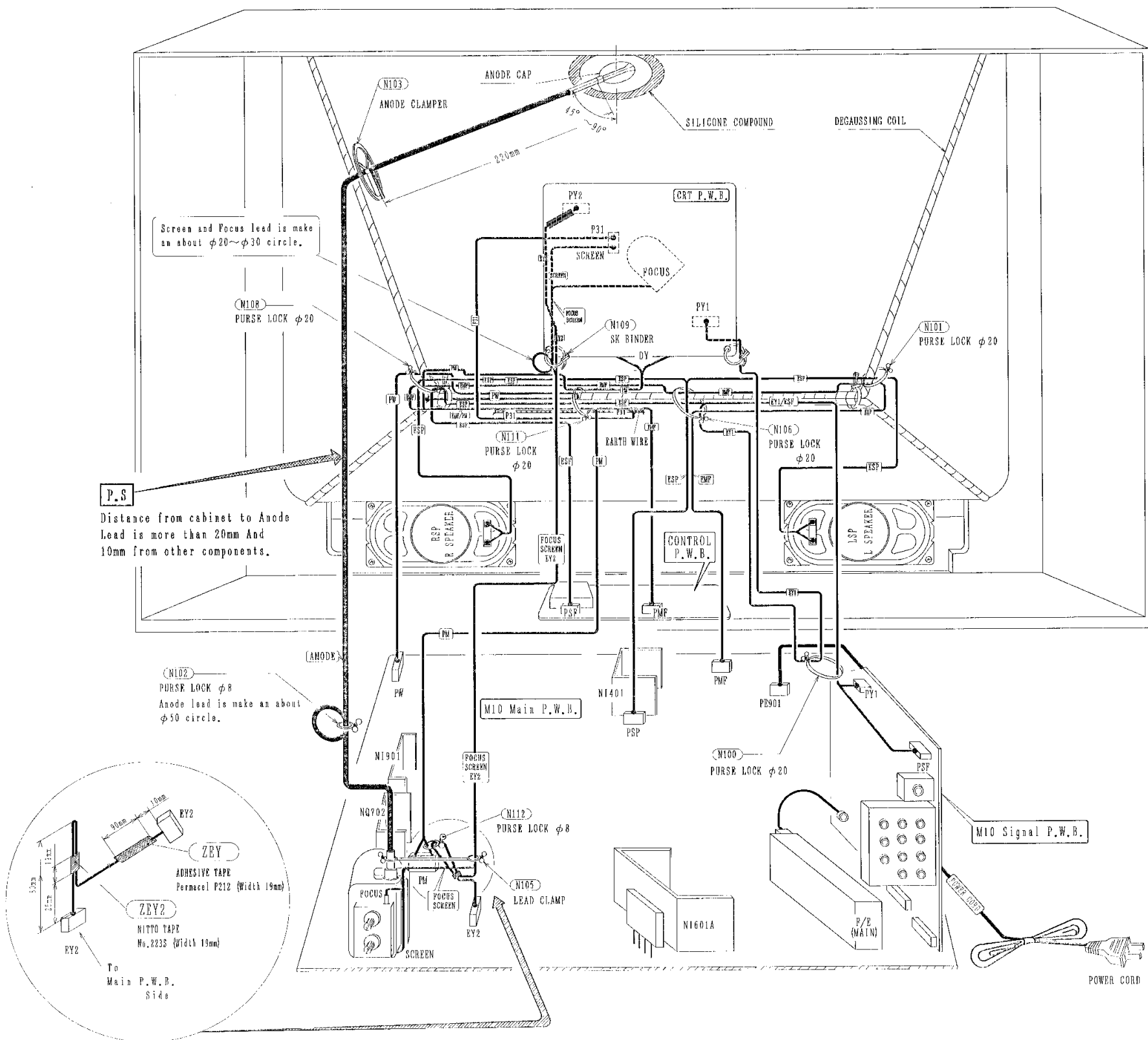
2. (N104) Assemble is below.



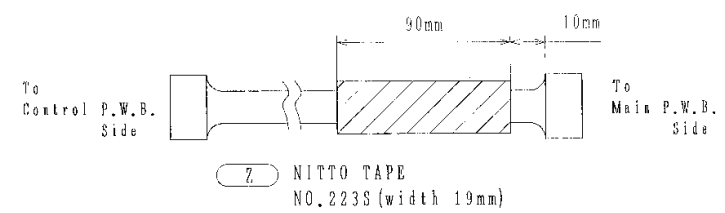
3. Preparatory work of EMP is below.



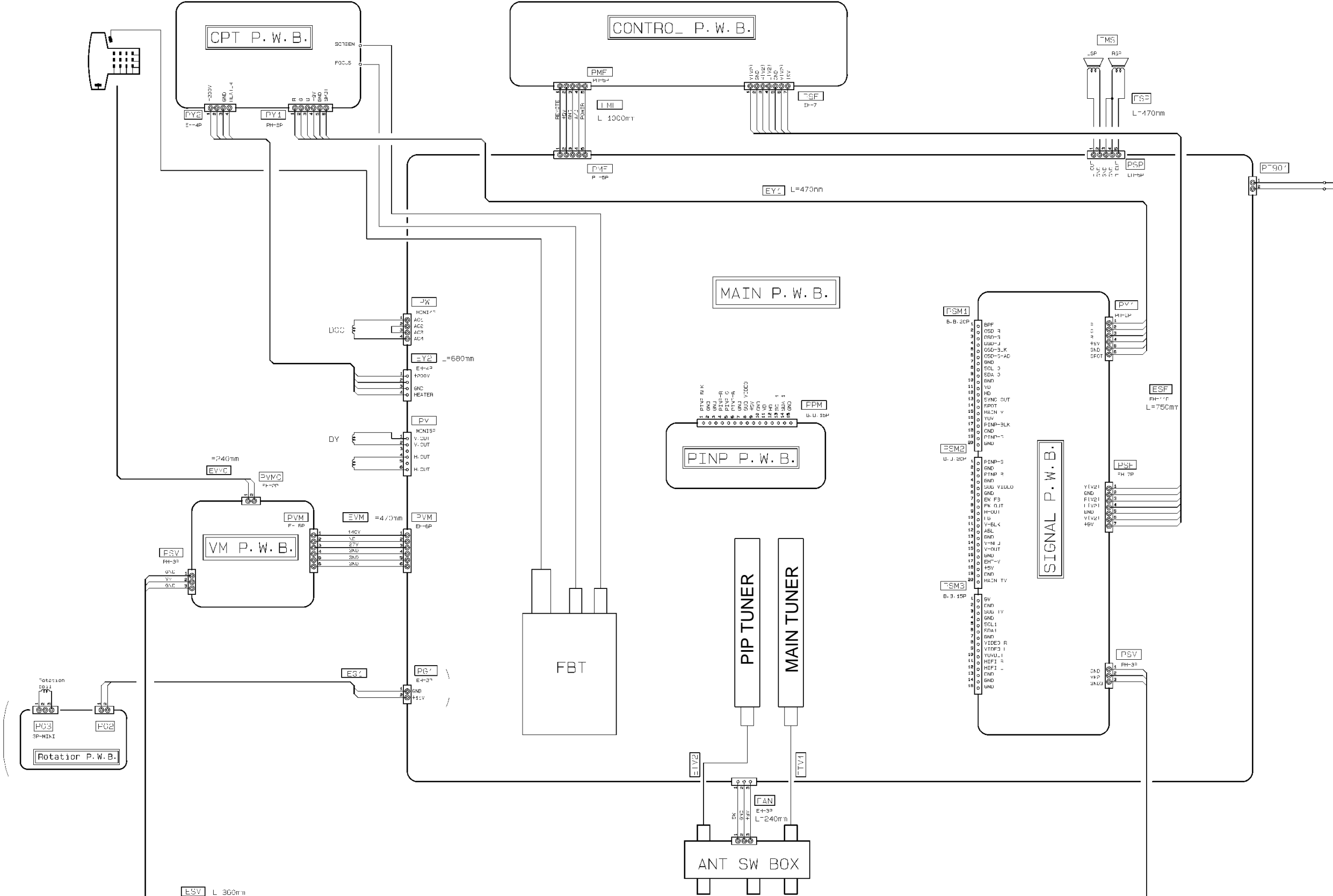
32GX01B M10 WIRING DRESSING



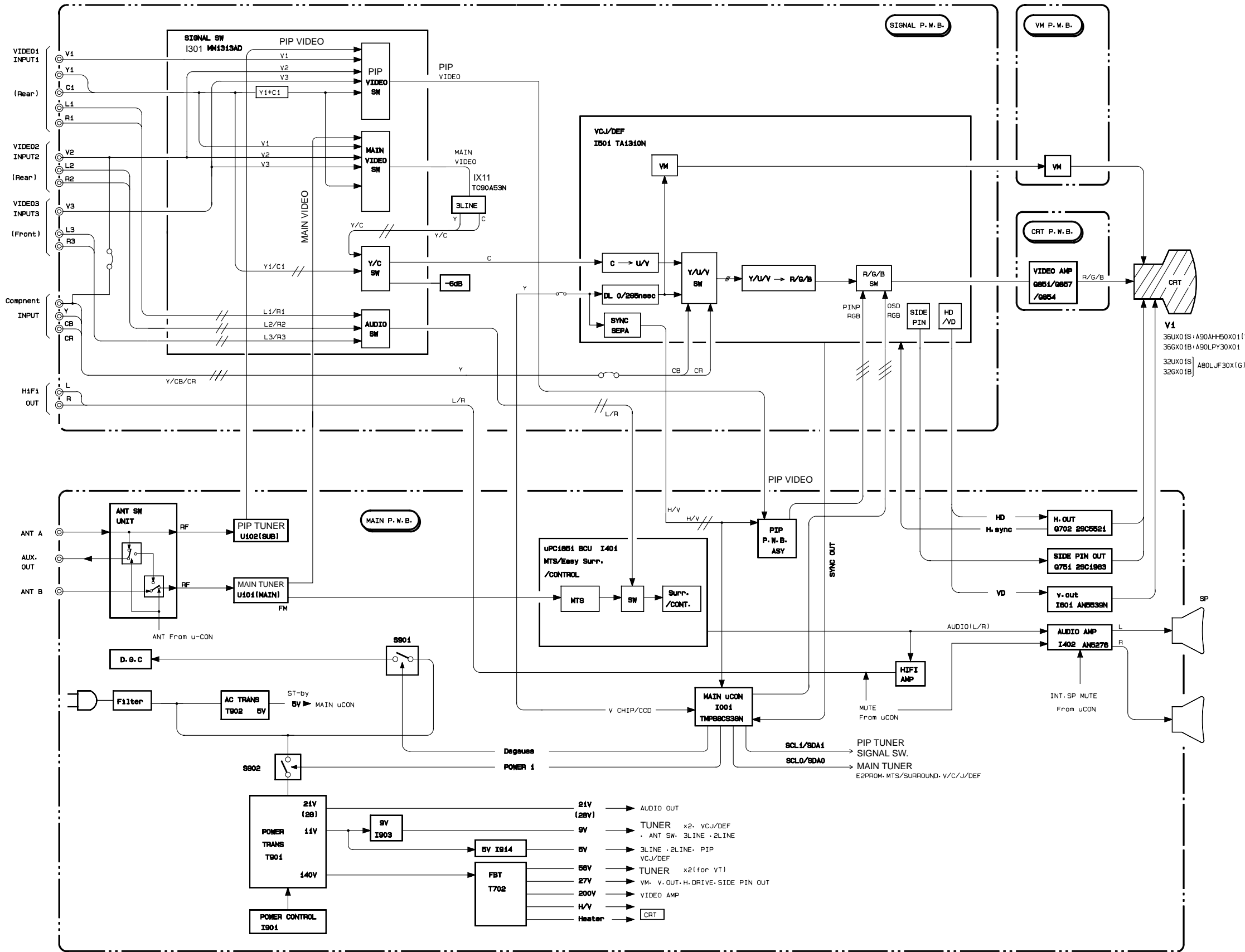
1.Preparatory work of EMF is below.



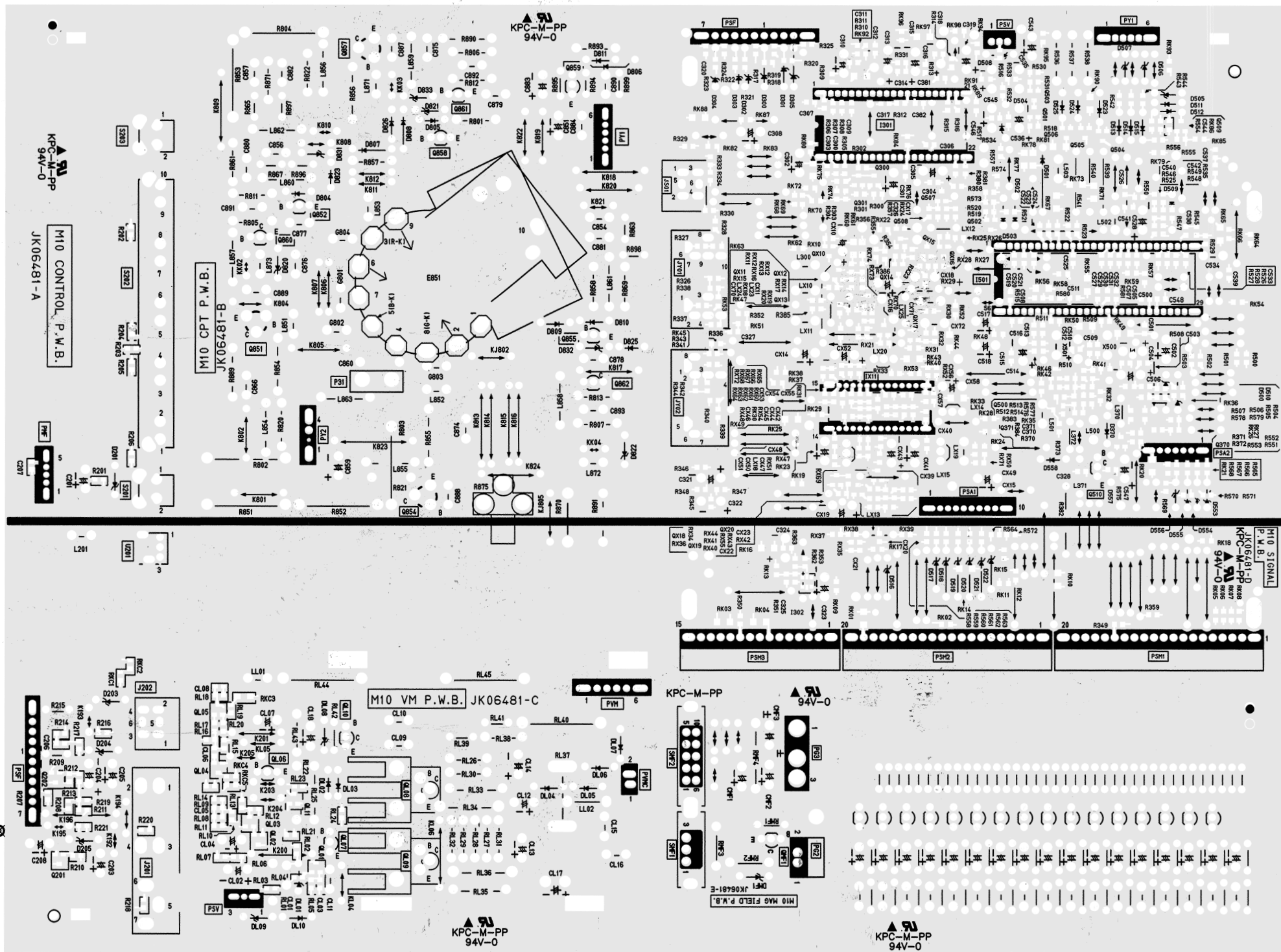
CIRCUIT DIAGRAM



BLOCK DIAGRAM

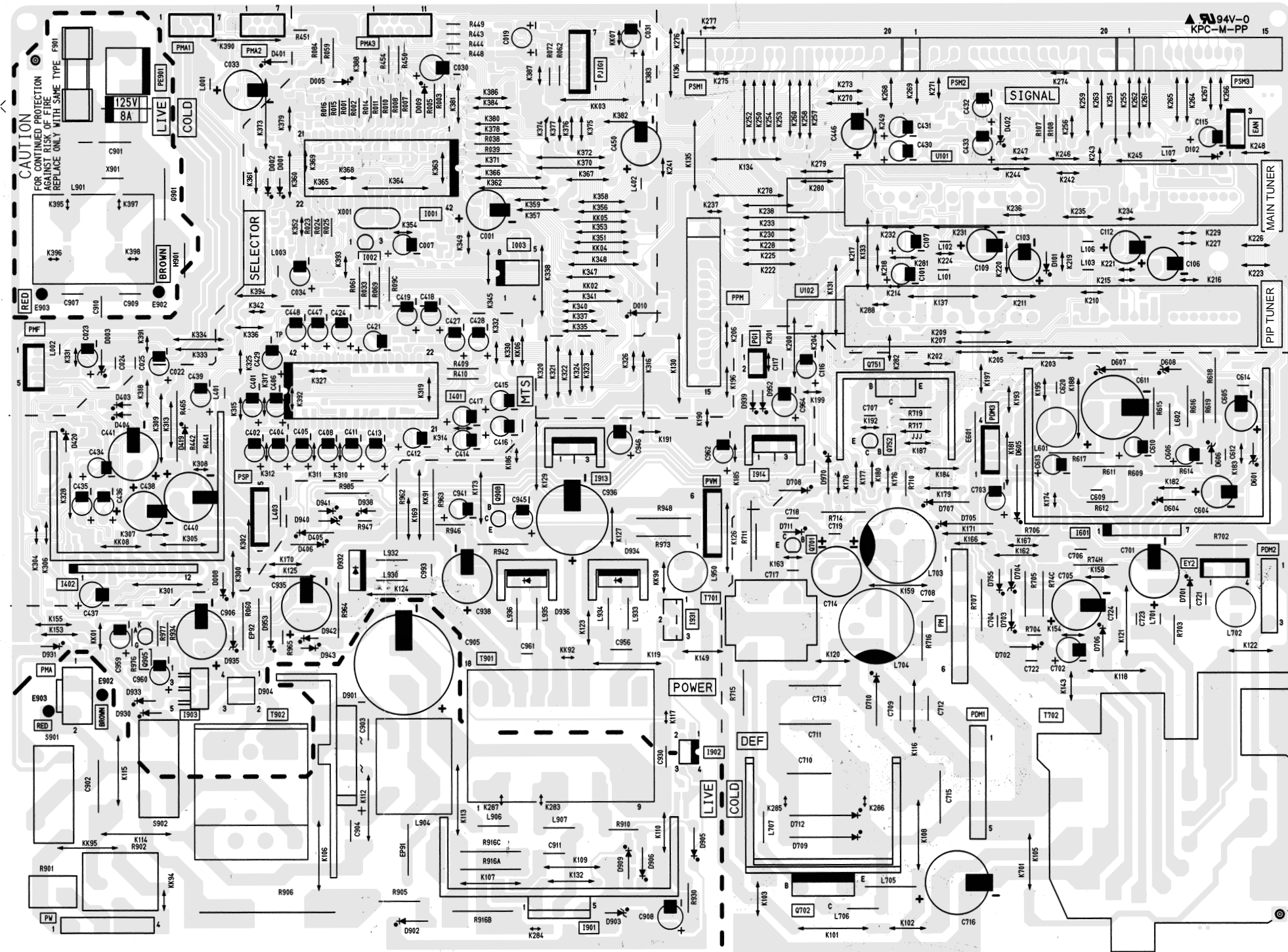


PRINTED CIRCUIT BOARD

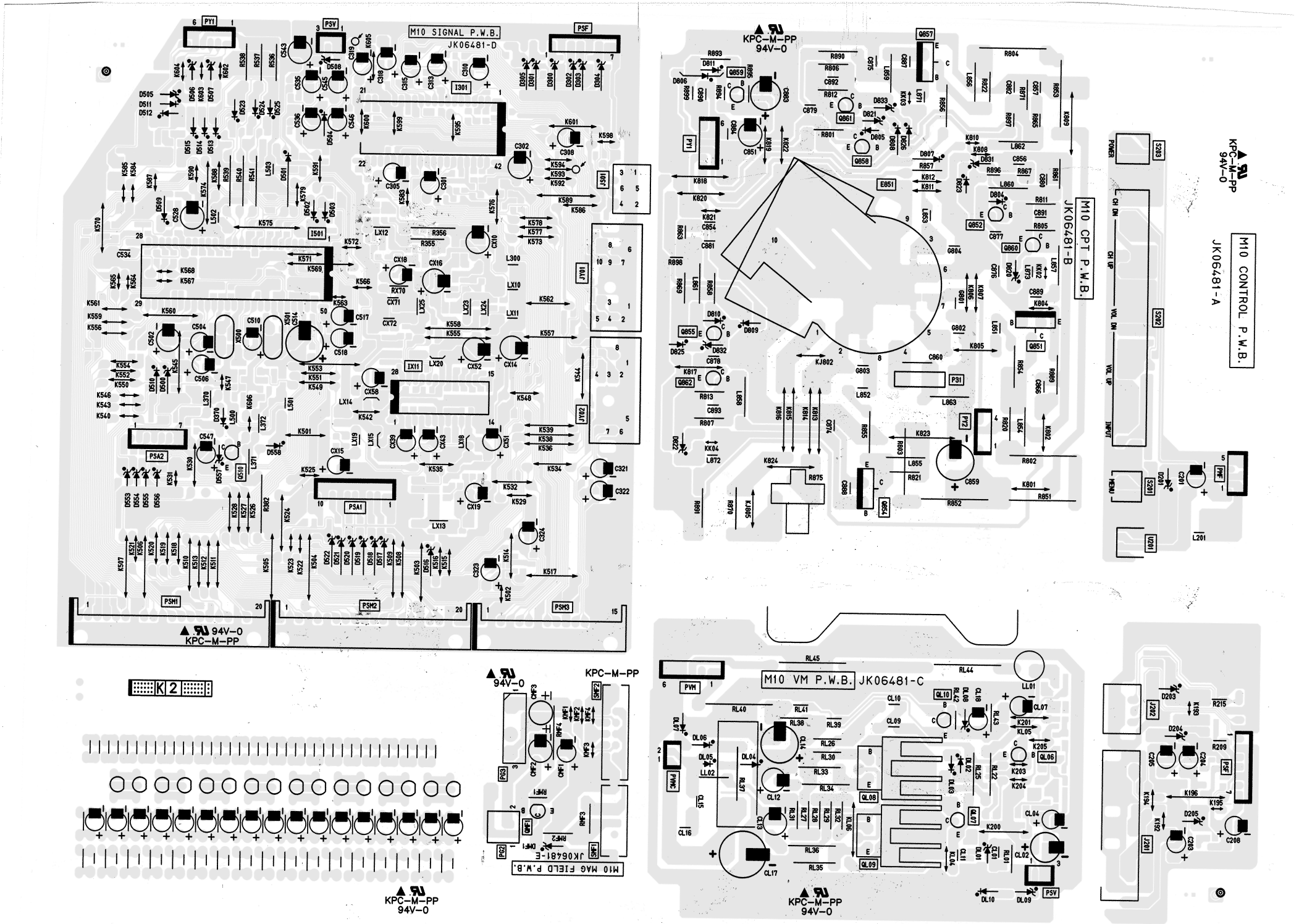


PRINTED CIRCUIT BOARD

MAIN P.W.B.




PRINTED CIRCUIT BOARD



MAIN POWER P.W.B.



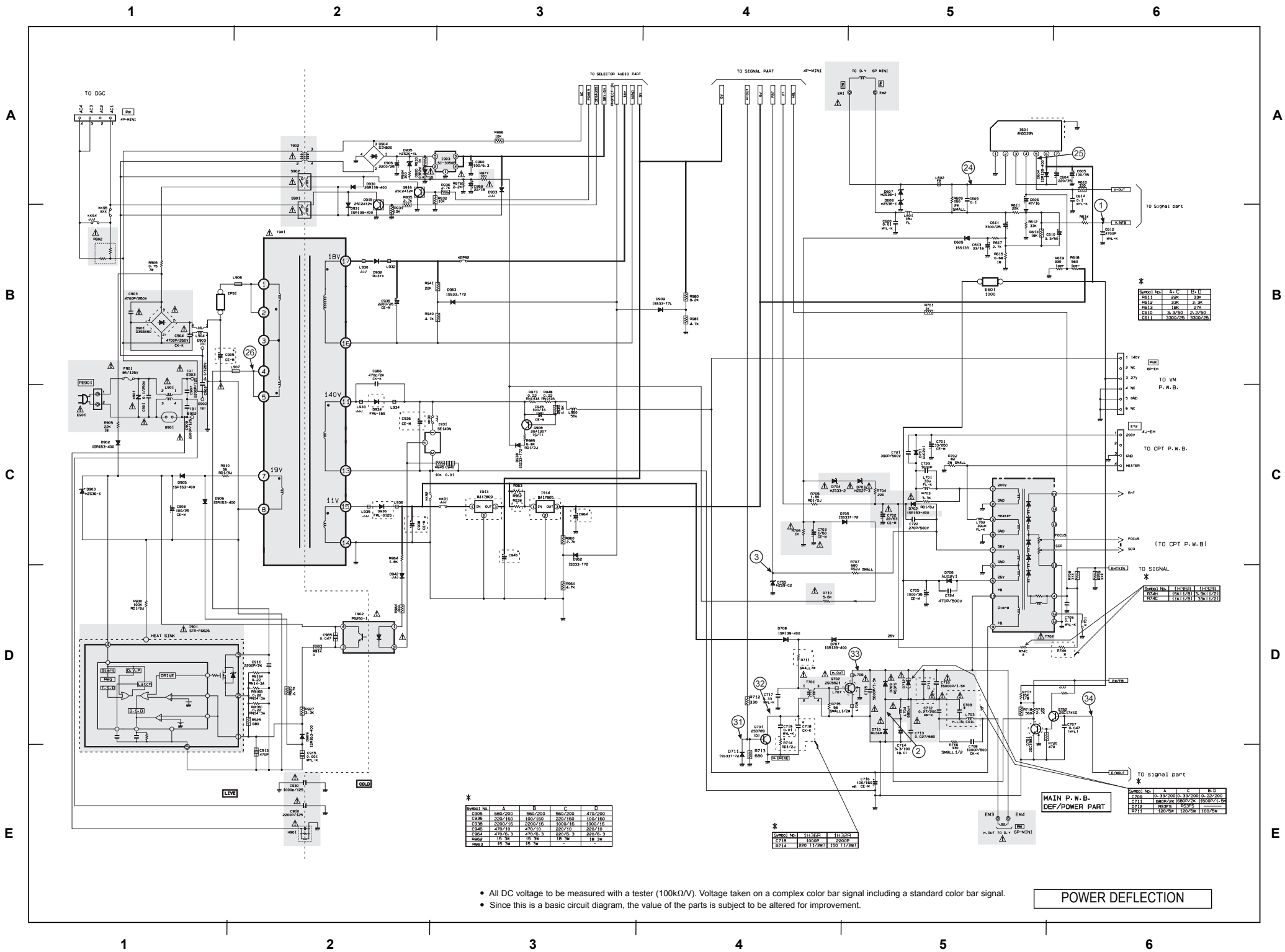
PRODUCT SAFETY NOTE: Components marked with a  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM


POWER DEFLECTION
SIGNAL 1 OF 3

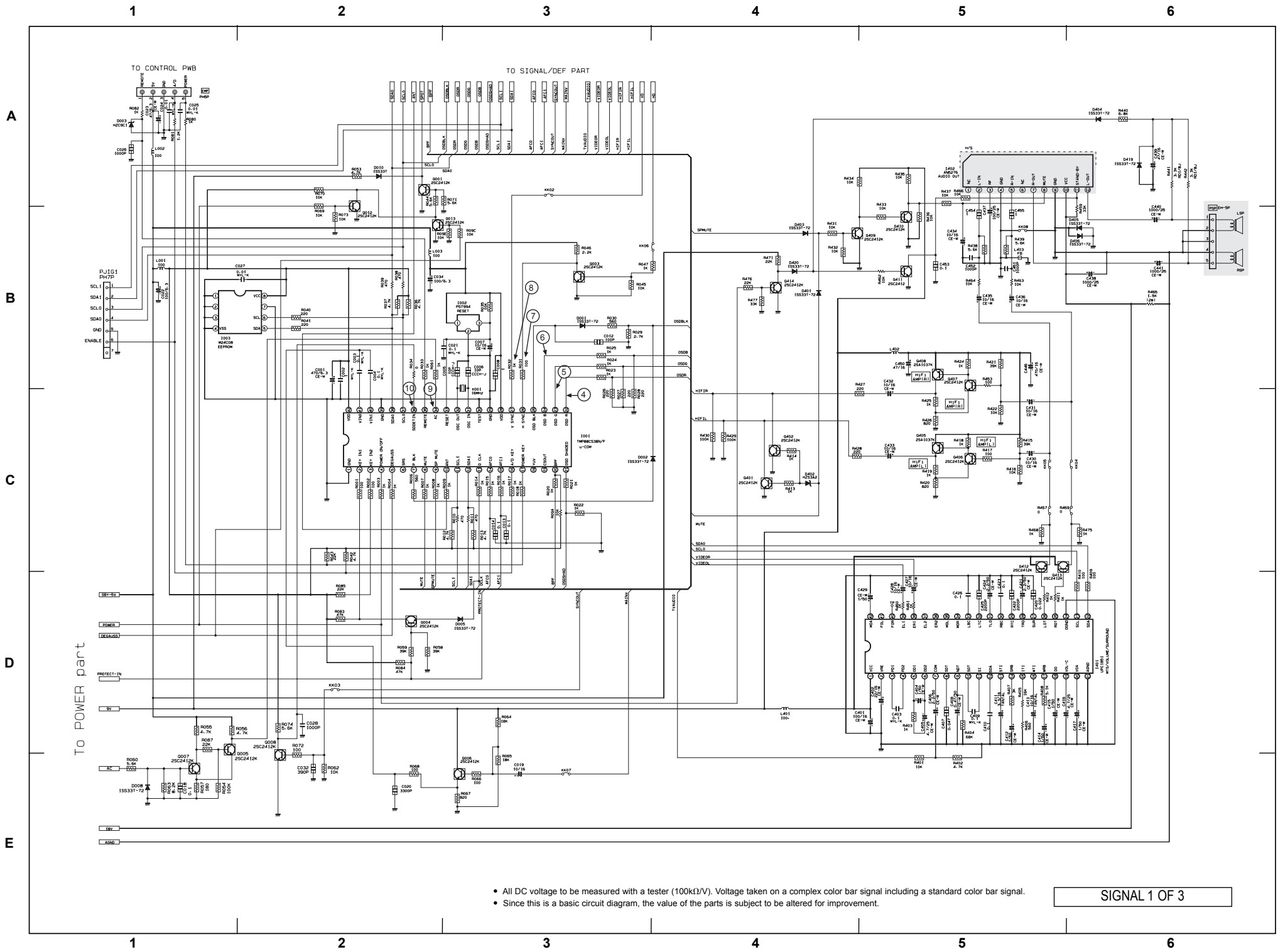
CIRCUIT NO.	PN NO.	DC VOLTAGE
I601	1	0
	2	13.96
	3	29.64
	4	1.85
	5	1.78
	6	28.74
	7	1.97
I901	1	1.7
	2	0.1
	3	165.6
	4	19.0
I902	1	10.3
	2	9.8
	3	3.1
	4	19.0
I903	1	0.0
	2	9.7
	3	5.1
	4	5.1
I913	1	11.4
	2	0
	3	9.0
	4	0.0
I914	1	8.0
	2	0.0
	3	5.0
	4	0.0
I931	1	140.7
	2	9.8
	3	0.0
	4	0.0

CIRCUIT NO.	PN NO.	DC VOLTAGE
Q701	B	0.3
	E	0
	C	14.4
	B	0.2
Q702	B	0
	C	139.0
	E	0.5
	B	0
Q751	B	19.8
	E	0.5
	C	3.7
	B	0
Q905	A	9.34
	K	0.0
	B	140.3
	E	140.7
Q908	B	0
	C	0
	E	0
	B	0
Q915	B	0
	C	5.1
	E	0.8
	B	0
Q916	B	0
	C	0.1
	E	0
	B	0




BASIC CIRCUIT DIAGRAM

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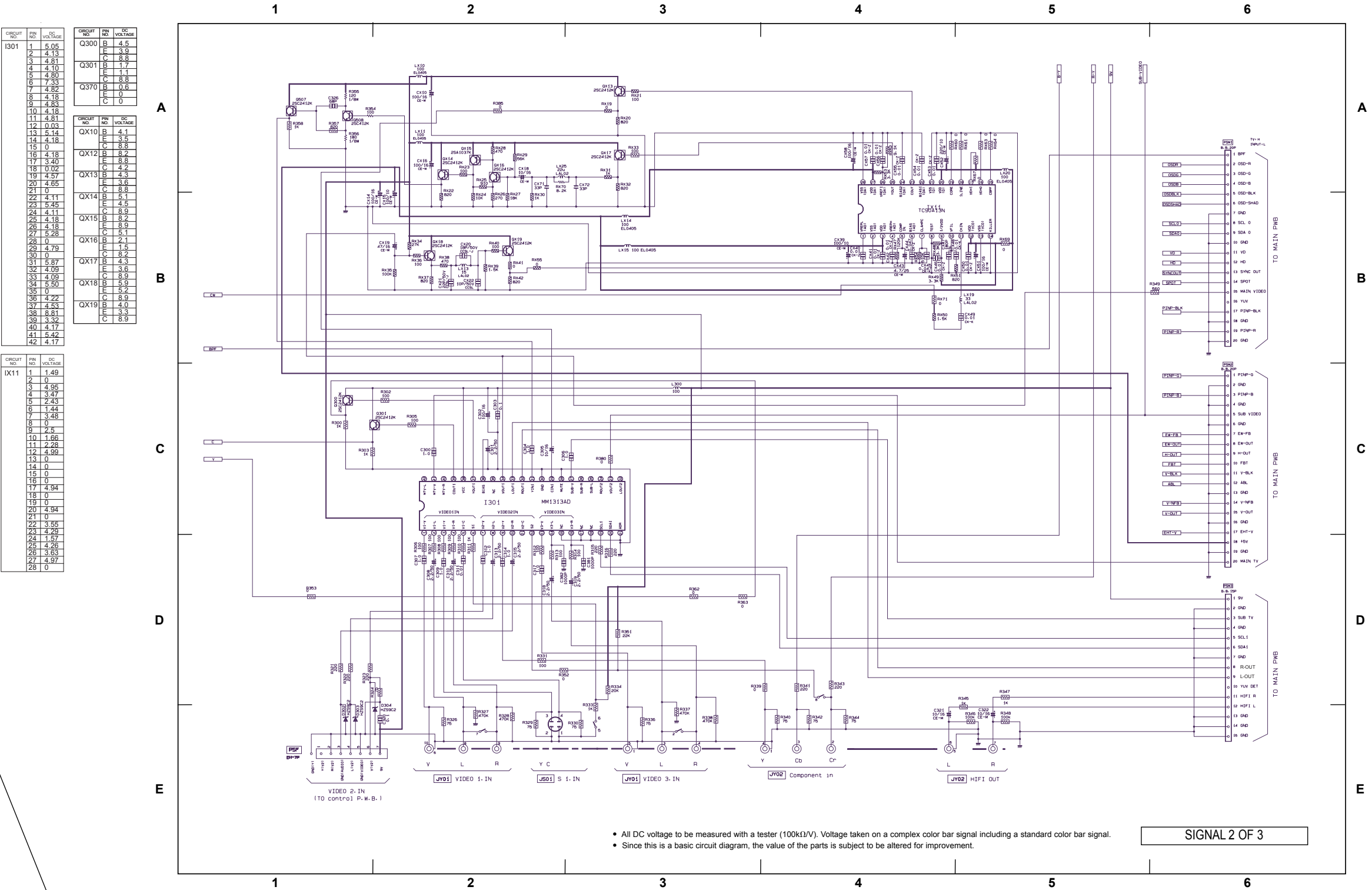
- All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

CIRCUIT NO.	CIRCUIT NO.		CIRCUIT NO.	CIRCUIT NO.			
	PN NO.	DC VOLTAGE		PN NO.	DC VOLTAGE		
1001	1	0.0	1001	1	0.0		
	2	4.9		2	0.0		
	3	5.0		3	4.4		
	4	4.9		4	4.4		
	5	0.0		5	4.4		
	6	0.0		6	4.4		
	7	0.0		7	4.4		
	8	0.0		8	4.5		
	9	0.0		9	4.0		
	10	4.9		10	3.3		
	11	4.6		11	4.4		
	12	4.7		12	4.2		
	13	4.9		13	4.2		
	14	2.9		14	4.51		
	15	2.7		15	1.23		
	16	5.0		16	4.91		
	17	5.0		17	1.00		
	18	0.0		18	4.16		
	19	0.0		19	2.15		
	20	4.2		20	4.41		
	21	0.0		21	0.0		
	22	0.0		22	4.41		
	23	0.0		23	4.42		
1002	24	0.1	1002	24	4.46		
	25	4.6		25	4.46		
	26	4.7		26	4.46		
	27	4.8		27	4.46		
	28	5.0		28	4.46		
	29	0.0		29	4.46		
	30	0.0		30	4.46		
	31	2.1		31	4.46		
	32	7.3		32	4.46		
	33	5.0		33	4.46		
	34	2.4		34	4.46		
	35	5.1		35	4.46		
	36	0.5		36	4.42		
	37	4.4		37	4.42		
	38	4.4		38	4.42		
	39	0.0		39	4.42		
	40	3.1		40	4.46		
	41	3.2		41	4.46		
	42	5.0		42	4.08		
	1003	43		5.0	1003	43	0.0
		44		0.0		44	0.0
		45		0.0		45	0.0
		46		0.0		46	19.53
47		0.0	47	0.0			
48		0.0	48	0.0			
49		0.0	49	0.0			
50		0.0	50	0.0			
51		0.0	51	0.0			
52		0.0	52	0.0			
53		0.0	53	9.71			
54		0.0	54	0.71			
55		0.0	55	0.0			
56		0.0	56	0.0			
57		0.0	57	0.0			
58		0.0	58	0.0			
59		0.0	59	0.0			
60		0.0	60	20.68			
61		0.0	61	11.42			
62		0.0	62	9.56			

PRODUCT SAFETY NOTE: Components marked with a  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

BASIC CIRCUIT DIAGRAM


SIGNAL 2 OF 3
SIGNAL 3 OF 3

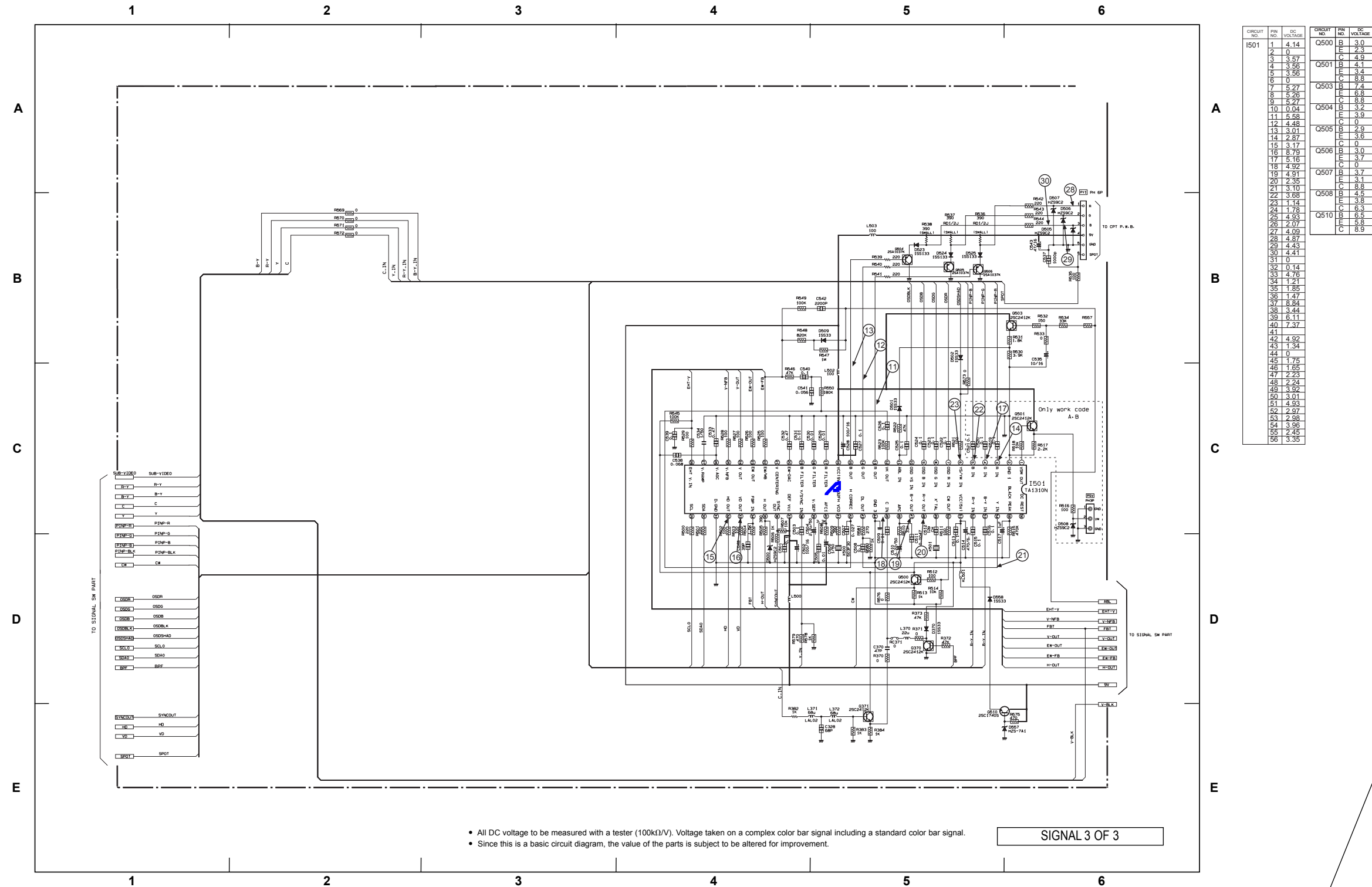


- All DC voltage to be measured with a tester (100k Ω /V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

SIGNAL 2 OF 3



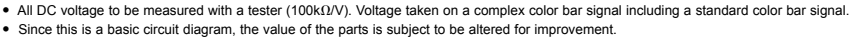
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 **HOME** 


BASIC CIRCUIT DIAGRAM

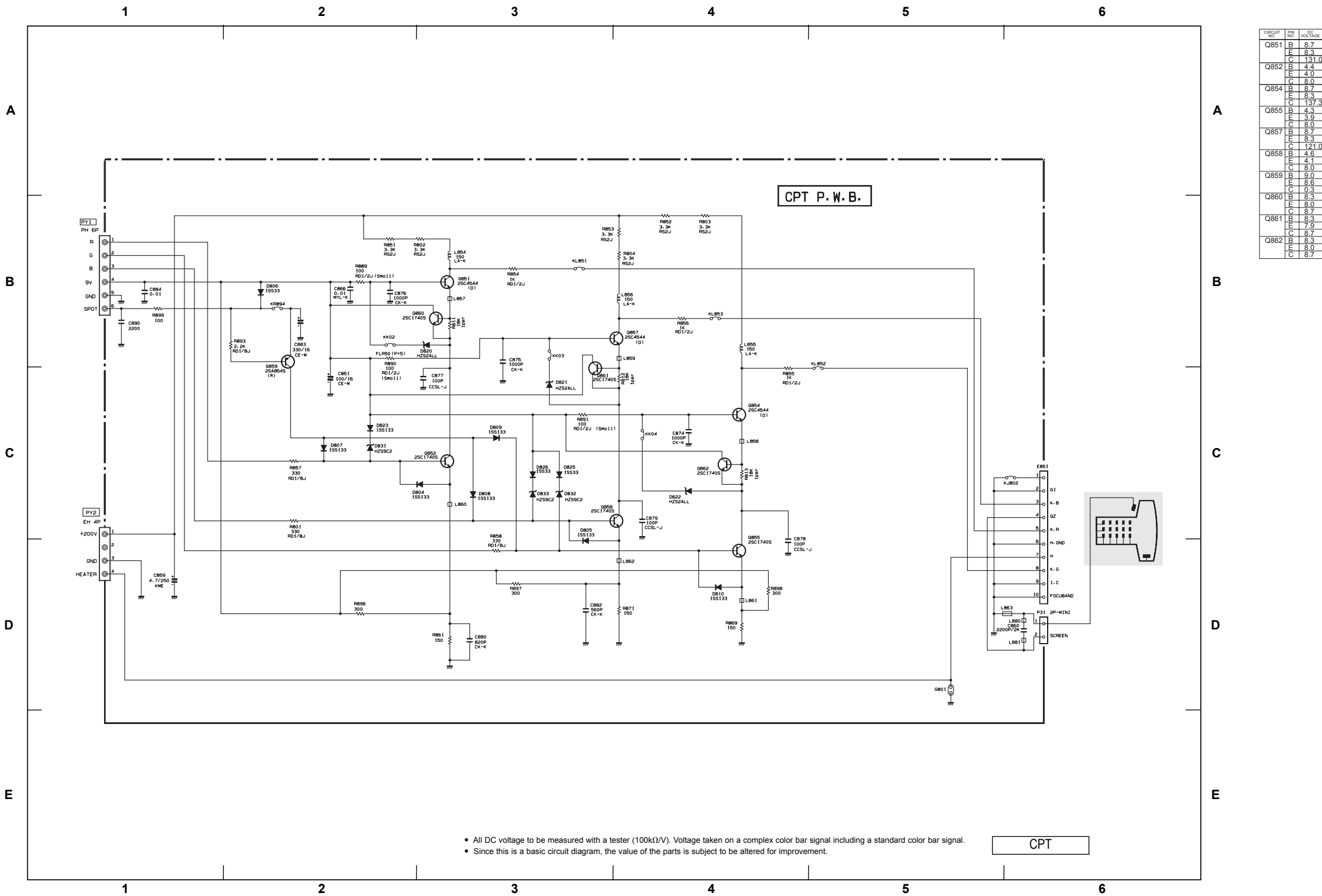
CIRCUIT NO.	PIN NO.	DC VOLTAGE
PPM	1	0
	2	0
	3	0
	4	1.5
	5	1.5
	6	1.5
	7	0
	8	5.5
	9	5.0
	10	0
	11	4.8
	12	0.1
	13	4.6
	14	4.7
	15	0




TUNER

BASIC CIRCUIT DIAGRAM

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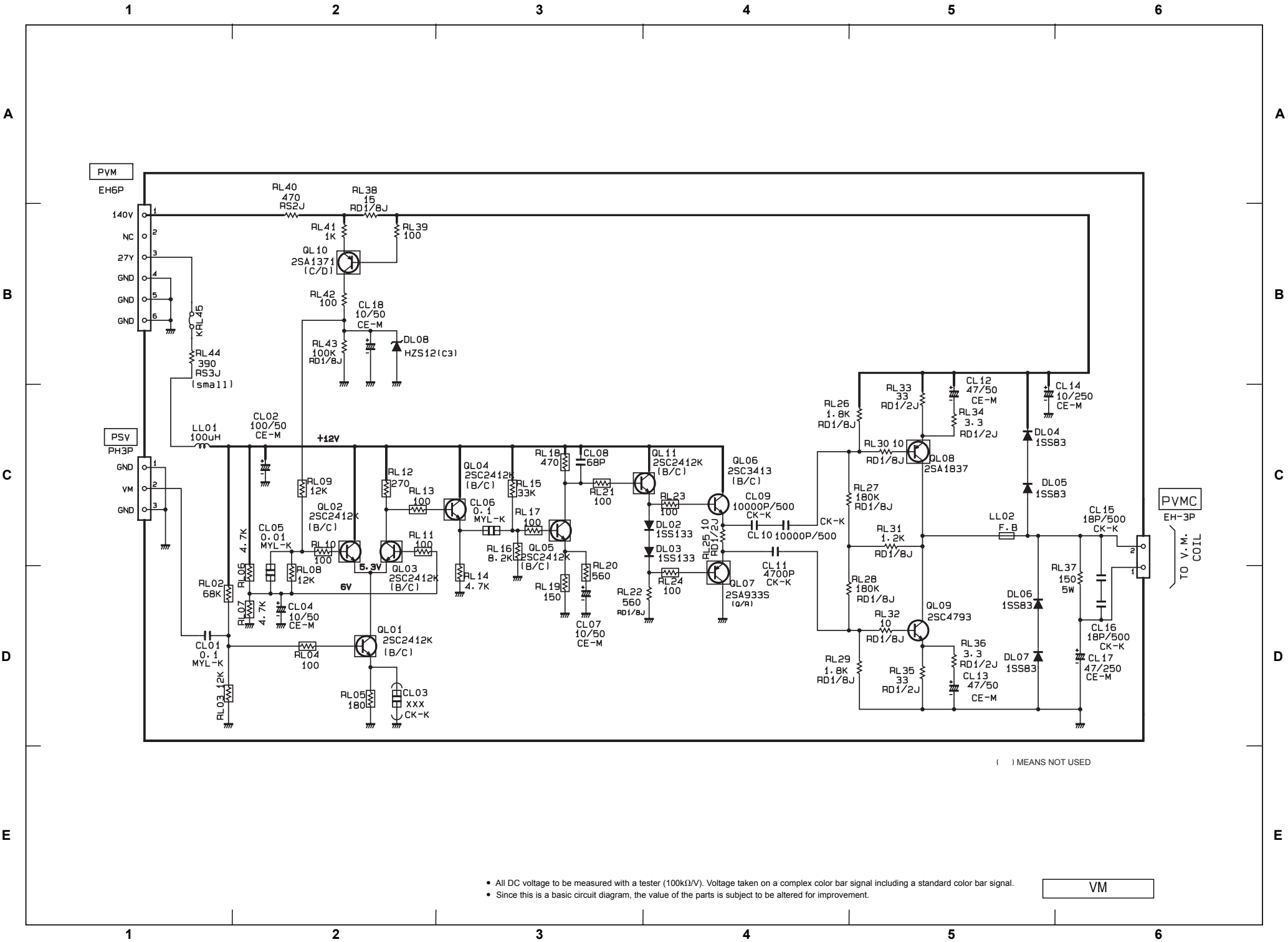


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BASIC CIRCUIT DIAGRAM

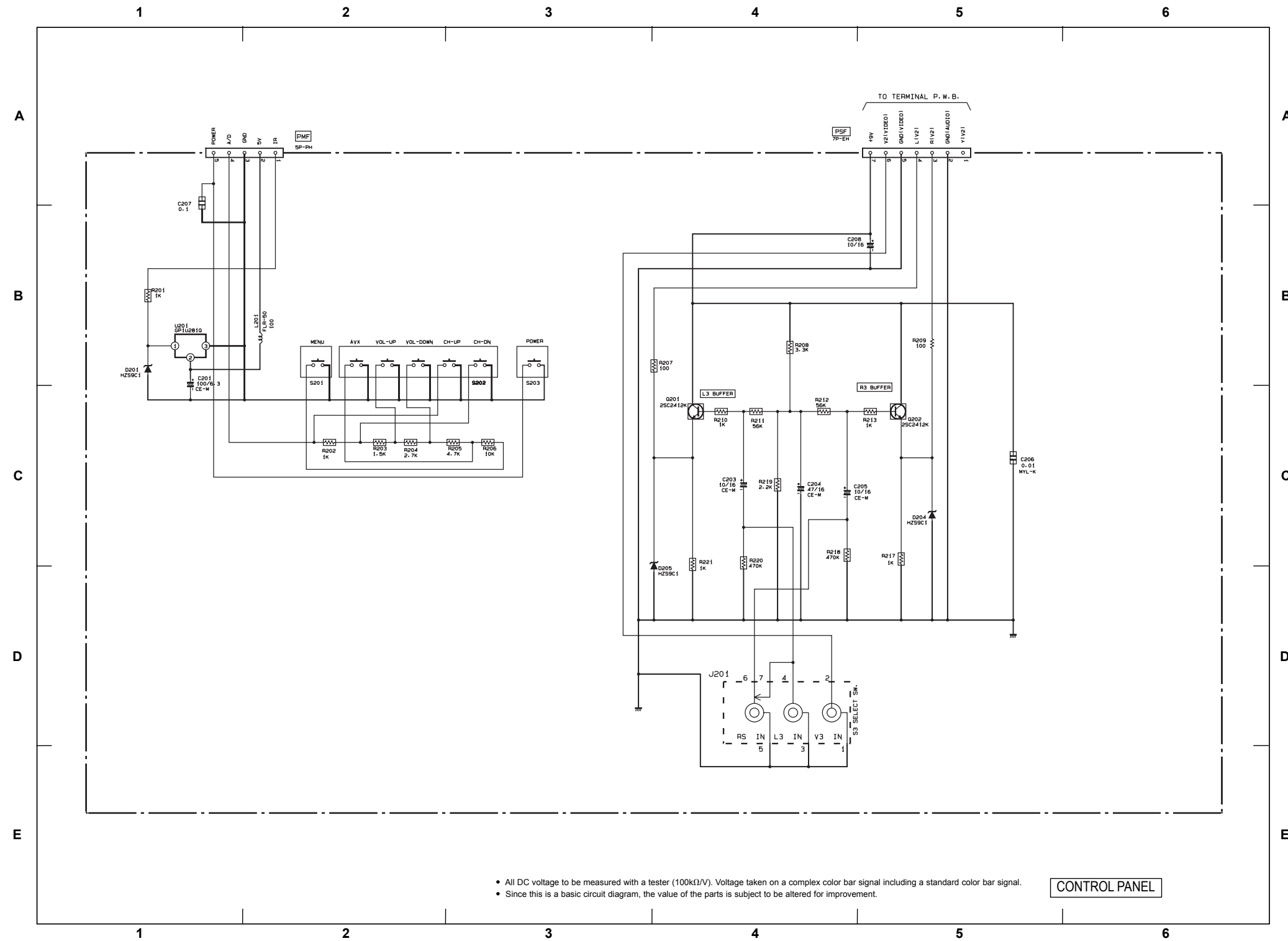
VM
CONTROL PANEL

CIRCUIT NO.	PIN NO.	DC VOLTAGE
QL01	B	1.7
	C	1.0
	E	5.7
QL02	B	5.8
	C	5.7
	E	13.2
QL03	B	5.4
	C	5.7
	E	11.8
QL04	B	11.8
	C	11.1
	E	13.2
QL05	B	2.3
	C	1.7
	E	8.0
QL06	B	7.3
	C	6.6
	E	13.2
QL07	B	5.9
	C	6.5
	E	0
QL08	B	128.8
	C	128.3
	E	77.5
QL09	B	0.6
	C	0.8
	E	77.4
QL10	B	129.0
	C	129.3
	E	5.2
QL11	B	8.0
	C	7.3
	E	13.2



← HOME →

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NOTES:

HITACHI